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GILMAN'S RURAL WORLD.

ESTABLISHED 1848

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE ETC.

OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

Sixty-Eighth Year. ST. LOUIS, MO., AUGUST 20, 1915. Volume LXVIII. No. 29.

AUG 19 1915



IN DAYS GONE BY

WHAT OUR READERS THINK & DO

EDUCATE THE RISING GENERATION IN THE RIGHT WAY.

Editor, Rural World:—I have long ago learned that a child that is reasonably bright can acquire a vast amount of knowledge if it has mental energy and is blessed with a determination to study. The trouble with many children is that they are mentally lazy, and want to depend too much on their teacher for the acquisition of knowledge. Parents are sometimes to blame, as the children infer from the tone of their conversation that a teacher should possess something like supernatural power to drive instruction into the brains of unwilling pupils. If parents would co-operate with the teacher and spend a few spare moments occasionally in helping their children in their studies at home, it would lead to great advancement in educational matters. The farmer often spends time in the care of stock, that should be given to the kids.

School studies have been greatly simplified during the last few decades, but there is still room for improvement in this direction. I remember when I was an urchin of some seven or eight years, I studied arithmetic from a work, the phraseology of which would have perplexed a green college student, and the result was that I could solve only the easy problems given in the book.

It has been said that a child's education commences as soon as it has been ushered into the world, and that it continues until death, but many people think that their education is finished when their school days are over, which is a great mistake. The human faculties are capable of an indefinite expansion, and the objects to which these faculties may be directed are boundless and infinitely diversified. How necessary then it must be that the training of our children should be of the right kind, and conducive to their usefulness and happiness, both here and hereafter.—J. M. Miller, Missouri.

NOTES FROM AN OHIO FARM.

Editor, Rural World:—We are nearer "up with our work," than we have been since the middle of June. It has rained every few days since June 1, and we have had more weeds than in any two years since 1905, but two more days in the corn will clean up our crops. My 14,000 plants of tobacco is extra fine and early, while Harry's 20,000 plant crop is later, but promises to make a heavier crop than my own, as the later tobacco often does.

Wheat was a miserably poor crop, the county average being not above five bushels per acre. Rye was fair and oats the best crop in years.

Potatoes are fine, the heaviest crop I ever saw, and my 1,300-plant sweet potato crop is the best I ever saw at this date, (Aug. 10). Many being more than one and a quarter inches in diameter.

Hay is a heavy crop, and promises to pay the growers better than in years, if any price can pay a man to grow so exhaustive a crop as timothy hay.

My experimental work this year is a patch of Sudan grass—five rows, two feet apart, 65 feet long, drilled in June 2, now averaging nearly eight feet tall, some plants more than nine feet.

The fame of this Sudan grass reached as far as Texas, and a few days ago, one of the professors from the Texas A. and M. College came to photograph it. He said that for size it was never beaten.

We were honored with a visit from Sam Jordan last week, as Sam had a few days off between Chautauqua dates, and being within 60 miles of us, came to talk over our old institute

days. He compliments us as farmers, and says that we have certainly done well to farm our lands more than 100 years, and have no abandoned fields.

Dr. Luckey is coming to visit us this week, as he speaks at our chautauqua on tuberculosis, and I am looking forward with pleasure to the day he is to arrive, so I have decided to shorten the time a little, by going down to Cincinnati, and meeting him on the way.

Two nieces from the mountains of Kentucky paid us a visit a few days ago. In their section, tomato canning is a new industry, and they hope to make it a profitable one.

One of our sons is coming to spend a few weeks at the old home in August; the other two later. One is in Kansas City with the Missouri Dairy Company. The other two are near Hickman Mills, Jackson county, Missouri, operating a 40-cow dairy of their own. A neighbor who has just recently returned from there, says that they have 50 tons of alfalfa hay in the barns and the third crop a foot high.

One of our married daughters lives two and a half miles from home; the other in eastern Illinois. So, you see, we are getting scattered.

Stock is in fine condition and good prices for everything but hogs, as 7-cent hogs and 90-cent corn don't "corroborate" as an old fellow used to say.—C. D. Lyon, Ohio.

LET HOGS KEEP THE BOLL WEEVILS IN CHECK.

Editor, Rural World:—Most of the insect enemies of vegetation make the earth their place of hibernation after their evolutionary stages of development and the completion of their season of destroying vegetation. This period of hibernation is passed by most insects in their pupal form. Nothing is more clearly demonstrated than this feature of the boll weevil. This pest should be attacked when in this inactive pupal form. All other methods, such as the destruction of the active beetle by whatever means, must necessarily be at best only applicable to, and remedial or preventive of the ravages to the growing crop, and with only restricted and inefficient results. Even burning the dead stalk in immediate contact with the pupa, can have but a limited and restricted benefit, so far at least as to the ultimate destruction of pest.

The remedy then manifestly would seem to be to attack the pest in its inactive hibernating stage beneath the surface of the soil in the fall and winter months. How? We have the means at hand—a willing laborer to do the work, and at the same time pay richly for the privilege of doing it.

Turn the hogs into the cotton fields as soon as the crops are gathered, and leave them there until time to begin another crop. No pupa, larva, cocoon or earth worm will escape his voracity; and incidentally, without the expense of team or plowman, the fields will have had, not only a fall plowing, but a continual repeated upturning of the soil to the nitrogenizing, fertilizing influence of sun and atmosphere. Incidentally again, the hogs will have increased in pork value; but don't forget to credit him at the same time with a liberal percentage of the increment of the succeeding crop.—L. A. Wailes, M. D., New Orleans.

WHY PATRONIZE MAIL ORDER CONCERNS!

Editor, Rural World:—Occasionally some newspaper, muzzled by local concerns, will flail the hayseeds for dealing with mail order houses. Now, it is well to patronize home institutions so long as they deal justly and for reasonable profits. But within the last ten years there seems to be a great change in our local commerce. The merchants are unforgotten and meet together, give wise words and signs and think the hayseeds are not aware of their combination. They inform each other what they will pay and take. The take is always over and the pay under.

If a fellow wants a little credit while working his crop, they compare their credit lists and scrutinize and publish his failings. If he has been slow to meet a debt through misfor-

tune, all know it and he is just as guilty as the one who willfully beats his way, so far as their credit is concerned. The man who pays well is charged well to cover bad bills.

So, at least, I have experienced something like this when dealing with local merchants, and will from now on patronize mail order houses.—"Goose Quill," Missouri.

OPTIMISTIC OUTLOOK FOR COTTON AND OTHER CROPS IN SOUTH.

Editor, Rural World:—We of the great southeast flatter ourselves that we are passable farmers these days. We are adding a little to both the quality and quantity of our live stock; we read more magazines, farm and newspapers in one month now than were read by our fathers and grandfathers in 13 in those ancient times; we are breaking our land deeper, and in this way, doubling our acreage without taking any that belongs to a neighbor; we are getting better acquainted with the farm implement manufacturers who are furnishing one thing or another to make it possible for a man to "do" three days' work in 14 hours.

And, better still, we have "discovered" (after being told where to find it) that there was a supply of nitrogen just over wherever it was needed, and that we need only grow certain plants to have this nitrogen sucked into the soil for us. And, as the small boy would say, "We done it." Thus getting one fertilizer ingredient for even less than nothing.

What if we did haul back home some of last season's cotton crop, and for the first time in the history of the industry, were told, "There is no market for the stuff?" Didn't the world discover pretty soon that it couldn't even kill without cotton? Sure! And, what if the warring peoples, changed over night, as it were, from farmers who produced into soldiers who destroyed, destroy so much of what they had produced to eat that they needs must call afar for more, and the price of what we had (not) produced knocked a hole in the opposite direction of cotton prices? Didn't we make this last winter, for the first time in nearly two score years, some of that very wheat that most everybody had said couldn't be made here? Sure!

Cotton Not the Only Thing.

Some times it does one a lot of good to get his head bumped, for in this way he is made to "take notice" of what is ahead of him. So it was with us here in "Wiregrassland." We were getting entirely too far away from the safe and sane path that leads to a full crib and smokehouse. It's well enough to make use of the latter-day time-saving implements and ideas to increase the size and profitability of our cotton crops; but it also is not a bad idea to use these to better fill the corn crib and smokehouse, as well.

The man who is least troubled by this European mixup, is the man that has right-about-faced and filled up a storehouse right on his farm. Doubtless he will handle less money, but he'll handle less of care as well. Money, if we understand its use aright, is only a medium for making up the "difference" in exchange; and with more of what he will need on hand, the farmer should need less of the "change." So what have we to grumble about?

The crops this year are a month later than last, especially cotton. But it has rained regularly ever since they were planted, for the greater part of that time, and they have made up in quick growth some part of what was lost in planting.

Give cotton plenty of stirring and an occasional look at the sun, and it's going to hump, and then hump some more. And that's just what it has done.—R. M. McDaniel, Georgia.

NOTES FROM DUNKLIN COUNTY, SOUTHEAST MISSOURI.

Editor, Rural World:—This season has been one of the very best that southeast Missouri ever had. Farmers got their crops in early and worked out in good condition, generally. We had good rains, not heavy, but often, and usually at the right time to make the best crops. Recently it was get-

ting a little dry but on August 10 we had nearly two inches of rain. This will be good on late corn. Dunklin county has a lot of corn, much of it planted on wheat and oat stubble.

Take it all around, this county hardly ever had such a wonderful crop. Wheat was not quite so good as last year, but the acreage over last year was increased about 500 per cent, owing to the cotton situation. The wheat acreage will be still increased this fall. We will have by far the biggest corn crop we ever had. The pea crop is fine.

Cantaloupes were good and we got a good price. Along near the maturity of the watermelons, the vines began to die and some growers did not get a good crop, but melons sold high this season and they brought a good deal of money into the county.

Oats were the finest we ever had. Cotton promises a good crop, but the acreage is decreased about 30 per cent. Some are growing sunflowers for the first time. One farmer has 70 acres. Hay was a good crop, where meadows were not killed out by the two preceding years of dry weather.

This county had the best gardens in her history. Fruits of all kinds were abundant.

Dunklin county has made wonderful progress in the last few years. A spirit of progress has taken hold on the people and there is a wonderful development. People are greatly interested in better roads and schools. This county has nearly all her dredge ditches cut, but east of us, in the Little river basin, it is only well commenced. They are now at work cutting a ditch with its laterals from Cape Girardeau south to the St. Francis. The main ditch runs parallel to the Mississippi and is west of it 15 to 20 miles. It drains 512,000 acres and is the biggest scheme of its kind in the world. It will cost \$5,000,000. Many dredge boats are working day and night, each one throwing out one to two wagon loads at every revolution of the dipper. It will likely take five years to complete it.

Campbell, Missouri, for years has been noted for her big corn shows and big parades. As we have the biggest crop this year that we ever had, we propose to celebrate by having the biggest corn show and longest parade we ever had. These rich bottom lands, that until a few years ago were covered with a heavy growth of timber, are now being cleared up by hundreds and thousands of acres and put in cultivation.—R. C. Young, Missouri.

Increasing use of the national forests by local farmers and settlers to supply their needs for timber is shown in the fact that small timber sales on the forests numbered 8,298 in 1914, against 6,182 the previous year.

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COLMAN'S RURAL WORLD

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SEMI-MONTHLY.

When the Farmer Specializes, It Pays

Bulk of Incomes on Most Successful Farms Is Derived From One Particular Line---Proficiency in Management Must be Attained Before Venturing on Large Scale.

By J. A. Reid, Pennsylvania.

EVERY farmer is a specialist to a certain extent. It may be dairying, truck farming, poultry raising, the raising of one particular crop or some special line of live stock, but if you investigate you will find that every successful farmer owes his success to a specialty. To raise live stock, grain and produce, with perhaps a half-dozen other lines, on a small farm naturally requires more capital and labor than would be required were the farmer to devote his entire time and capital to the raising of one single crop.

Specialized in Poultry.

I know a farmer living in Dauphin county, Pennsylvania, who was never very successful as a general farmer. He was always interested in poultry raising, and his flock of hens were sure to pay a profit even if every other crop on the farm was a failure. Finally he decided to devote his entire time to poultry keeping. Accordingly he bought about 200 hens of the White Leghorn variety. Although this man was a failure as a general farmer, he had the business ability to make a splendid success of producing eggs.

It did not take much figuring for him to see that he would never get rich selling his eggs to the store-keeper at perhaps 20 cents per dozen. After carefully considering the matter he decided that his eggs were worth the most when strictly fresh, and began looking around for a market for them. He now has several large poultry houses, about 400 layers, and an incubator of several thousand egg capacity. A tuberculosis sanitarium now buys all his eggs at prices ranging from 40 to 80 cents a dozen. His eggs are all shipped from the farm before they are 24 hours old. He is making money and lots of it.

This man did not have several thousand dollars to invest in fancy birds, expensive houses or any of the frills which some modern poultrymen seem to think essential to achieve success. His original 200 hens were bought from the farmers in his vicinity at an average price of about 50 cents each. He improved his flock each year by securing pure-bred males from flocks having high egg-records to mate to his hens. In this manner he gradually increased the annual egg-production of his hens until today his hens lay as many eggs each per year as any hens kept in such large flocks. This is by no means an exceptional case.

Farming as a Business.

Although we hear much now-a-days about farming as a business, we heard practically nothing about that side of farming before the days of the specialist. When the farmer specializes, farming is reduced more to a business proposition than when general farming is practiced. It is easier to know the cost of your product, easier to know just what profits you are making and easier to keep accounts of your business. The general farmer usually has a little of everything to sell; consequently, he is almost forced to sell his product locally because he never has enough of one particular crop at one time to dispose of it in any other way. With the specialist it is different. He usually has a large crop to dispose of at one time, and he knows before-

Inexperienced City Men

Should Learn Before Leaping

Most city men who go "back to the land" want to begin by special farming. Ten to one they want to begin with some extremely special and limited thing, such as squabs, Angora goats, ginseng or hothouse lambs. But as a rule the man without farming experience should not begin with a specialty.

The experienced farmer or the farm laborer may "put all his eggs in one basket" because he knows how to watch that basket. He knows whether he likes the dairy business best, or grain farming or poultry. The city man does not, and if he fails the first year or finds the specialty uncongenial, he has learned little or nothing about the other branches of agriculture.

City men without farming experience and with less than \$1,000 capital should master general farming first. By the end of a year the city man will be able to tell whether he likes country life in general, whether there is a chance for him to succeed, and whether he should continue general farming or devote himself to a specialty. If he puts his \$500 in Belgian hares or something similar, and loses it, he is in the dark as much as ever concerning the fundamental features of farming. He should first learn the general principles of agriculture. There will be plenty of time and lots of room to gain experience and profit with a specialty.

hand just when the crop will be ready, and he can make arrangements to dispose of it. When the farmer specializes his expense of running the farm is also reduced to a minimum, including the cost of labor.

A Peach Specialist.

The young man of today who has the foresight to see his opportunity in some special line of farming will be the successful farmer of tomorrow. General farming is becoming more and more superseded by specializing in farming, and the opportunities for the young man with little capital in general farming are getting rarer and rarer.

Mr. J. H. Hale, the peach king, of Connecticut, started life with nothing more than a determination to succeed. While struggling to keep the wolf from the door, with his widowed mother, on a small, unproductive farm, Hale saw the opportunity even their poor farm offered in raising peaches. One fall, instead of paying the interest on the mortgage on their farm, young Hale, who was then about 16 years old, took the money and bought a number of peach trees. Of course, the banker and other "wise" men of the village advised him against doing it, and prophesied what the results of such foolhardiness would be. But Hale planted his trees, and the banker had to wait for his interest.

The moneyed men of the village evidently thought

it was impossible for a young fellow like Hale to make a success raising peaches. "Why, nobody else has ever been able to raise peaches in this section. You'll just waste your money spending it for peach trees," they told him. But Hale had learned somethings for himself, among them how to raise peach trees, and not to listen to the village "sages."

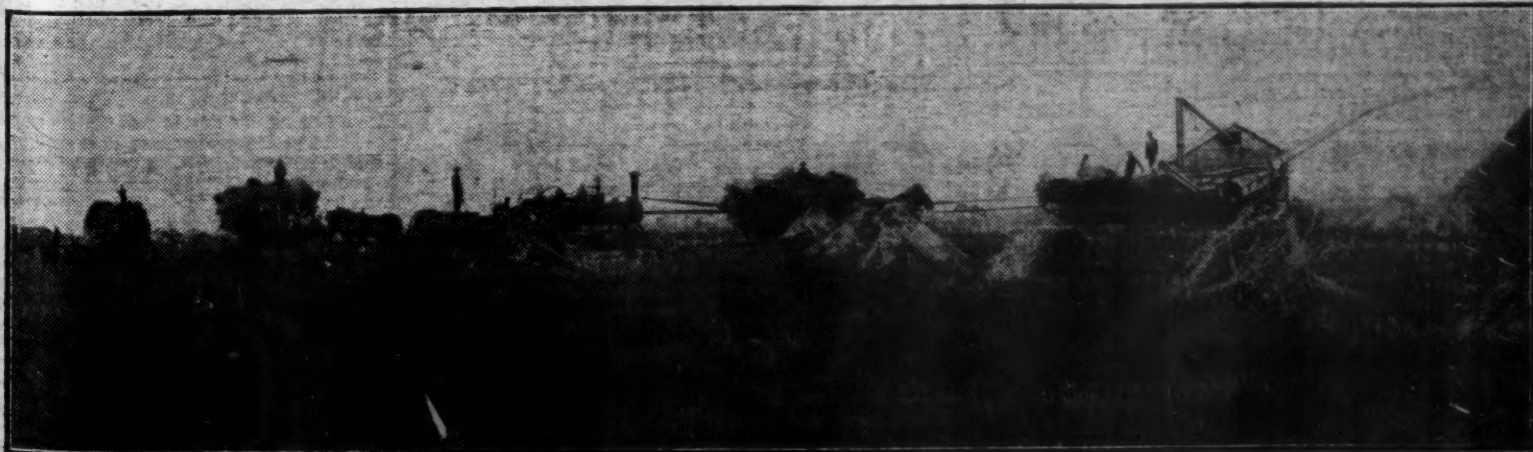
Two or three years later Hale walked into the village bank, paid the back interest on his mother's farm, paid off the mortgage, and to the banker's astonished questions answered that he had a good bit more money besides, and that it was peach money. The banker immediately advised him to put the remainder of his money in the bank on interest, saying he would never again have such a good crop of peaches. But Hale just laughed at him, and invested the remainder of his money in more peach trees. Today he owns an immense peach orchard in Connecticut and one of several thousand acres in Georgia. His peaches are shipped to market by the carload every season. He is now known as the "peach king," and only he himself knows what his annual income is. Hale's success shows what any determined young man can do, even though he has no capital to start with, when he practices specializing and is determined to make a success of his undertaking.

Learn Before Venturing.

The number of different lines that the farmer can specialize in is almost unlimited. I know farmers who are making more than average successes in dairying, in live-stock raising, in bee-keeping, truck farming, poultry raising and a dozen other lines. But I have yet to see a farmer who is making a success of specializing in any particular line who did not show proficiency in that line before he took it up on a large scale. Far too many farmers specialize in one line simply because they know someone else who has been unusually successful in that line. These fellows never make anything out of it. They dabble in that line, be it fruit growing, truck farming, poultry raising or some other line, until they discover that they are losing money, and then start in some other line that another neighbor has made money in.

The man who is really making money in any line of farming is the one who has brains enough to think for himself. He does not always do as somebody else is doing. He discovers for himself what kind of crop is best suited to his soil and climate, and after having made it pay on a small scale gradually increases his crop annually until it is as large as he cares to have it. No farmer should devote all or most of his time to one particular side of farming unless he has first shown that he can make that line pay in a smaller way.

Specializing seems to be practiced to a greater extent among farmers of the western part of the United States than in the east. The immense wheat farms of Kansas and fruit ranches of California are all fine examples of the achievements of specialists. The owners derive a far larger profit from these farms than they could possibly do by cutting them up into small patches and raising a dozen different crops.



Specializing in Wheat Has Made Many Men Rich and Many Soils Poor—Grain Gives Greatest Gain on Farms Where Fertility Does Not Fail—Keep Stock or Buy Fertilizers for the Land's Sake!

By F. H. Sweet.

If fertilizer is sown it is best to sow it with the grain, through a grain drill, for this lets the fertilizer run out close to the ground and in the same drill as the grain, and doesn't blow all over the field as it is apt to do when sown broadcast.

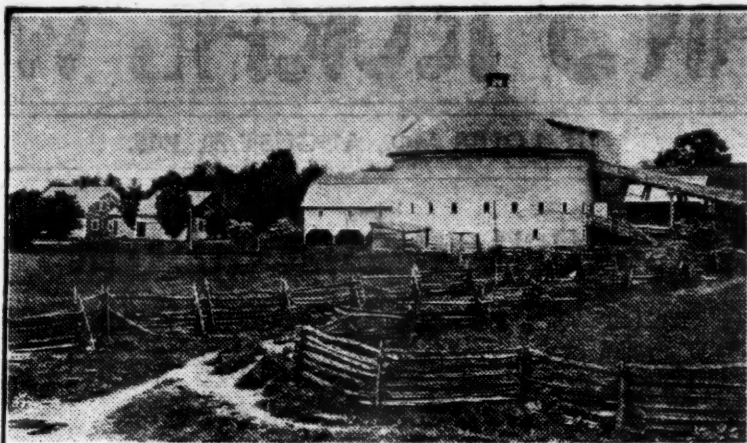
If you do plow up the field or lawn, say September 1, harrow over every few days, and about September 15 cross plow and sow with rye or wheat with the grass seed. This also does away with having the field or lawn remain torn up, which is very unsightly. The rye or wheat comes up at once, and the field or lawn in a few days or two weeks is a fine green, and will stay so all winter. There is nothing that looks so well in spring and early summer as to see the rye or wheat waving in the wind until cut. After this run the mowing machine over it and rake off the stubble, and you will soon have a green field or lawn again.

Most farmers feel more or less anxiety about their corn crop this year, but those who feel the least anxiety are those on whose farms stand silos. The reason is simple. The silo makes it possible to save corn that might otherwise, owing to immaturity, be almost wholly wasted.

This is not to say that there is no hope of maturing the corn now growing—not at all. It is to say, however, that the corn is much behind time in its progress toward maturity, and therefore in greater danger than usual of being caught by killing frosts before it is wholly mature. A silo will prevent a total loss.

A SILO ON EVERY FARM.

**Saves the whole crop.
Insures "June Pasture" in winter.
Saves labor and storage space.
Doubles farm capacity for live stock.
Prevents waste in feeding.
Saves a frozen corn crop.
Makes better use of grain feed possible.**



- The walls must be smooth inside.
- The best type of silo is round.
- The roof should be water-proof.
- The structure should be substantial.
- It has to stand much pressure.
- The cost should be from \$2 to \$5 for each ton of capacity, provided the total capacity is to exceed 100 tons.
- A silo 14 feet in diameter and 32 feet high will hold 100 tons.

A silo should be placed as near as possible to the place at which the silage is to be fed, and should be on the least exposed side or end of the barn.

Any type of good silo is a valuable adjunct to the farm equipment where there is live stock to feed.

(Formerly Cattle and Dairy Consul for Holland.)

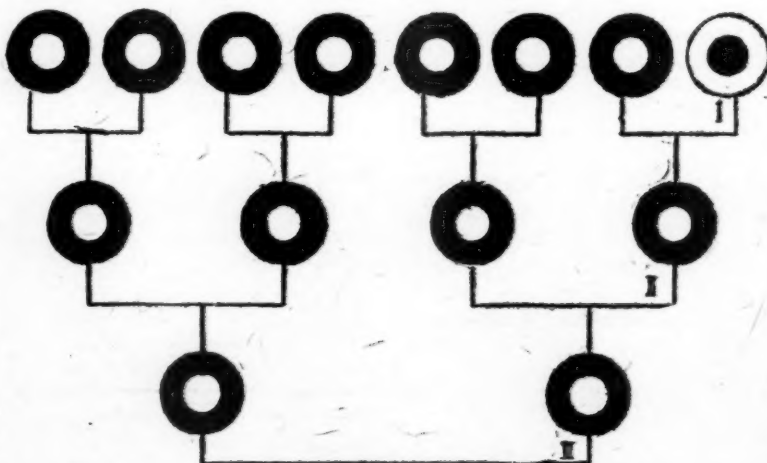
Red in Holstein Progeny.

The farmer in question had been breeding exclusively during 23 years black and white Holstein Friesian cattle in a pure line and year in and year out his young herd consisted of black and white calves. One winter, however, one of his cows, dropping her fifth calf, made an exception; viz., brought forth a red and white calf. He kept this calf, marked I in the diagram, for curiosity, being one from a

The cow I brought afterwards, as in all the years before, black and white calves. Her daughter II gave afterwards also birth to a black and white heifer calf, III. The calf III, however, made quite an exception. She produced a black and white bull calf, IV, with red spots as well in the white parts of the body.

The farmer did not keep this bull for breeding purposes, of course, as his farm was not an experimental station, but a real economical business proposition, destined for the breeding of the black and white race. Consequently no further information regarding the posterity could be obtained, but that II and III also brought afterwards black and white calves regularly. The two deviations of color that I have described were the only ones he had in his registry books during his long farmship.

Though contrary to the "factor theory," by which it is impossible that the hereditary factors come from the ancestors, but exclusively from the parents. I believe that this case ought thoroughly to be attributed to atavism and mutation.



II. and III. Black and White.

**V IV. Black and White Bull
With Red Spots Scattered
Over the White.**

By "Observer."

Florida citron fruit are getting so cheap that their culture is almost discouraging.

Anything on the orchard soil is better in winter than nothing. This has been demonstrated. Winter killing is less. This is probably one of the secrets of the sod orchard. Put a cover crop among your trees or everywhere else for that matter.

A powdered form of water-glass can now be bought for preserving eggs. It is both cheaper and more convenient than the old molasses-like fluid, silicate of soda.

A large section of stoneware tiling makes a good receptacle for anything if a thin cement bottom be set in it.

If possible, never let a clod dry before you hit it with something. There is little difference between dry clods and stones, and the earth in these is, to a certain extent, injured in fertility.

How the new words crowd us; Next to "efficiency," "conserve" has us in a fast grip. I note "strawberry conserves." My! My! will this one hurt the flavor of those old "preserves" on the top shelf in the pantry? Some words should be retained, such as "preserves," which treasure these sweetest of memories.

You may have a trellis for your blackberries if you like, but the best one is good soil, good culture and good summer pruning. The canes support each other if sufficiently close to intertwine lateral branches. Never let a cane grow up and curve over.

Phosphoric acid adds to the early maturity of the tomato.

In these days of much spraying perhaps the low "open center" apple tree is the best form, especially also when we consider this generation's love of color as well as flavor.

Doubtless it is better to drill cow-peas, etc., in the same row with corn by going over the second time. You get each grain just where you wish it better than if you attempt to sow the seed mixed.

It is surprising how much the average meat-killing farmer loses in not properly trimming his hams and shoulders. This surplus separated has a value, but it is small when sticking to the cured meat.

An experimenter notes two things about the soil into which green rye was turned under. It remained damper beneath and dried on the surface more rapidly for cultivation than other adjoining land.

Save a certain amount of water sprouts but do not allow them to overload the center of your apple trees.

Field peas grow on any sort of land and tend to renew it. Even stiff clays produce them. It is better if lime be present.

TO IMPROVE SANDY LANDS.

Add lime.
Grow legumes.
Rotate crops.
Conserve moisture.
Add plant food in stable manure or in commercial fertilizers containing phosphorus and potassium. (Get nitrogen by growing some legume, like clover.)

COLMAN'S RURAL WORLD

A. B. CUTTING, Editor.

Founded by Hon. Norman J. Colman

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NO ROOM FOR PESSIMISTS IN AMERICAN AGRICULTURE.

The pessimist is a pest wherever you find him. He never did nor never will do any industry or business any good. He is a clog on the wheels of progress, pulling back when "go ahead" is the only thing to do. There are pessimists everywhere; men who profess to be leaders in the field. Everything they say or write is saturated with a pestiferous pessimism that knocks the bottom out of the thing they intend to help.

Above all other callings agriculture has no room for the pessimist. Grievances the farmer has, to be sure, many of them. They never will or can be righted by the pessimist. Nothing can be accomplished by belittling the cause one represents. It is the fellow who extols his calling and shows its importance to the community who gains the ear of the governments when there are grievances to be remedied.

Let us get rid of the pessimist in our agriculture. There is an effective way of doing it. Sit on him good and hard when he begins to exploit his pessimistic ideas before the public. Give him to understand that neither he nor his vicious teaching is wanted. He will soon find his level, which is at the foot of the procession that is making for progress and prosperity.

RECREATION IN RURAL COMMUNITIES.

"All work and no play makes Jack a dull boy," is a truism that applies with particular force to the farm. No place needs play more than the rural community. Living becomes a hard, iron-clad proposition with no surety of anything save the deadly monotony of the daily grind, unless it be relieved by some form of occasional recreation.

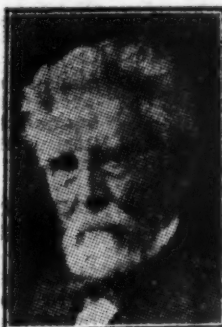
In recreation there is an economic value of great importance. From the rural districts comes the citizenship of our country, and if we are to keep the ideals of our nation inviolate, we must keep our country youth content on the farm. In any place life must be made attractive to make it worth living, and to save young people from gaining the false standards of value and false ambitions which the city offers, life at home, in the country community in which each farmer and his family live must be made attractive and possible through some form of home and community recreation.

CURES FOR CONSUMPTION.

By all means, say the government bulletins, avoid "cures" for tuberculosis. Many of these are humbugs. Years ago a cure by the use of a single metal went the round, and scores died under it, though at first it furnished a stimulant and sedative which made the

Colman's Rural World was established in 1843 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a champion of advanced agriculture this journal has attracted nationwide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

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First U. S. Secretary of
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necessary to discuss the merits of the various types of silos. But if you have sand and gravel near your farm and have some old scrap iron that needs submerging, you will find the concrete silo an economical addition to the farm equipment. Build a silo of some kind, and build it now.

MILK SUPPLY AND FOOT-AND-MOUTH DISEASE.

It was to be expected that the extensive and serious outbreak of foot and mouth disease, again discovered in this country last October and now apparently well under control, should raise questions respecting its bearing on human health. Although only secondarily and casually a malady of man, the foot-and-mouth disease seems to reach him in occasional cases in connection with every epidemic. Some authorities believe that its occurrence in man is much greater than the statistics indicate, as the milder cases are not seen by physicians. Reports concerning the appearance of the characteristic vesicular eruptions in the mouths of children were received during the 1914 outbreak. Although infection can doubtless occur by the contact of saliva or contents of the vesicles of infected cattle with abrasions of the skin, the commonly assigned mode of transmission to man is through unboiled milk, butter, cheese or other similar dairy products. In the recent outbreak the history of the cases is said to incriminate the milk supply. There is abundant evidence, says the Journal of the American Medical Association, that the infectious agent can be destroyed with comparative ease by heat or the usual germicides. According to the government authorities, milk pasteurized at a temperature of 60 C. (140 F.) for 20 minutes is safe so far as infection by foot and mouth disease is concerned.

"MADE IN AMERICA" BY HAND.

There is now in the possession of the United States Department of Agriculture a pair of cotton gloves and a pair of cotton socks into the manufacture of which no machinery has entered. The cotton was grown from long-staple Columbia seed sent out by the department a year ago to a farmer in South Carolina. The farm manager was interested in this seed, planted it by itself, and when the cotton began to ripen about the 1st of October picked three pounds of it himself. He then picked the seed by hand from the cotton, obtained one pound of lint cotton. This he delivered to a lady in the vicinity, who carded it by hand, spun it into thread by hand, and knitted from it a pair of socks and gloves. Such instances as this are encouraging evidence of the interest that progressive farmers are taking in experimental seeds obtained and distributed by the department.

sufferer think sufficiently well of it to continue to buy it long after these benefits had passed. Good air and good oil are the best things for this trouble—along with good company and good sense.

ELECTRICITY IN RURAL LIFE AND PURSUITS.

Over 90 per cent of the population of our cities are served with electric power, while scarcely 1 per cent of the rural population avail themselves of its many uses. But the demand is steadily growing. Once used always used, is the natural result of the economy, efficiency and enhanced returns from the electrified farm. For lighting the farmstead, and surroundings, for night work and traffic; for electrical devices in the homestead,—cooking, washing, laundry work and sewing, for pumping and irrigation, for power, wherever a wheel is to be turned, electricity is the one universal supply. One cent's worth of electricity will operate a 16-candle power lamp for five hours; or a six-pound flatiron for 15 minutes; or an electric washer with capacity for 12 sheets per washerful, long enough to wash out 20 sheets; or a pump to raise 100 gallons of water 100 feet; or a sewing machine

for two hours; or bring to a boil one quart of water.

Of all the motive driving powers for farm and home machinery, electricity is considered the most satisfactory. It can be had on any farm, from a public supply or a private plant. Few farms need be without this great cornerstone of comfort and efficiency.

PREPARE THE SILO, OLD OR NEW, FOR THE COMING CROP.

The extent to which dairying has figured in the livelihood of our farmers is plainly evidenced by the frequency of silos. The day for contributing all diseases, aches and mishaps to silage is past. The silo is a recognized necessity by all progressive dairymen because it so completely cares for a phase of dairy feeding that becomes expensive when the silo is not used.

In these summer days the corn is making rapid strides toward the time when it will be ready to be prepared for winter succulence. After the corn has reached the stage in which it is ensiled, it is too late to build the silo. The time to prepare the silo, old or new, for the coming crop is now. Get the old silo squared up if it needs it; give it a coat of paint, it will lengthen its life.

It is far past the time when it is

40 Years Ago 20 Years Ago

In Colman's Rural World

(Issue of August 21, 1875.)

The recent high water in the Missouri river has done an immense amount of damage in cutting away the banks, and by changing the current of the river. In several places between St. Louis and Jefferson City, several large farms have been nearly washed away. Many of the owners of these farms are members of the grange, and feel as though some united action should be taken on their part, and on the part of all interested, to protect the banks of the river.

(Issue of August 28, 1875.)

The average annual wheat crop of the United States for the last five years is 230,000,000 bushels.

The population of the United States is over 40,000,000, and is still adding to its numbers 1,000,000 a year.

(Issue of August 22, 1895.)

With the general adoption of the bicycle sulky the necessity of the kite track as a factor in accelerating speed was done away with, and but few of the tracks of that shape are now in use.

The United States census figures for 1890 show a striking improvement in the sheep and wool industry of this country, the wool clip of 1890 being double that of 1870, and one-third larger than in 1880.

(Issue of August 29, 1895.)

The Live Stock Commissioners of Illinois were notified last week that Texas fever had made its appearance in Brown county, and that some 17 head of cattle had died of the disease during the week. We learn also that it has been seen elsewhere and even in St. Louis.

Home-Made Greenhouse

Inexpensive Structure That Can be Built by Any Handy Man.

BUILD a greenhouse this fall for forcing plants in winter and for starting things inside next spring. A fairly satisfactory greenhouse that will answer all the purposes of the small grower may be built at small cost. Here is a description of one, for instance, that was built at a cost of about \$20, the sash being adapted from other uses; but as the sash with the glass only represents about \$15 in original costs, the whole could be put up new for about \$35. It was built on a sheltered corner, with a southeast exposure, between the kitchen and the main house, and is in the form of a lean-to; that is, it has only three sides, the fourth being formed by the house.

The three sides are of glass, the sash used being two of six feet by five feet and two of six feet by six feet. The greenhouse is ten feet by twelve feet, with the long side to the south. At the west end is one six-foot sash at the south a six and a five-foot and at the east a five-foot.

Material and Construction.

The material and the method of construction are as follows:—Sills, two by fours, spiked together; two of 12-foot lengths for the front and two of 10-foot lengths for the ends. When spiked the sills should be leveled at a foot above the ground; after boarding, the ground should be banked up to the sills to keep out frost. Plates, two two-by-four twelves for the front and single 10-foots at sides; studs (including uprights for inside to divide

of a fairly large truck farm. Of course, cold frames should be built in addition to allow for transplanting when spring comes again.

If the beds in the greenhouse are to be used for forcing, hotbeds will be required, and the usual method followed; that is a foot and a half to two feet of good horse manure, turned two or three times before bedding, should be put in in layers and well tramped. It cannot be too well tramped to keep in the heat. On top of this put six inches of good friable loam. Care should be taken not to put in seeds until the temperature of the bed has cooled off to a point where they will not be scorched.

In hothouses, as a rule, good, rich, well broken loam is sufficient where artificial heat has been provided, but where this is not available, it is better to develop heat from the beds. In the hothouse referred to and described, a small coal oil heater, known as a blue-flame stove, is used at nights and the sun does the work through the day. Even in this case the hotbed is a safe expedient, as with very cold nights the young plants are apt to be retarded a little.

GARDEN ANTS DO NOT INJURE PLANTS—OFTEN DISFIGURE LAWNS.

Ants in lawns and gardens do little harm. The injury that is attributed to them is usually caused by something else. In large numbers, however, the small conical nests which they build on lawns are somewhat unsightly and on this account it may be desirable in some cases to destroy them.

Where there is only a small area to be covered the simplest method is to drench the nests with boiling water. Another simple remedy is to spray the lawn with kerosene emulsion or with a very strong soap wash prepared by dissolving any common laundry soap in water at the rate of one pound or half a pound to a gallon of water. Such methods are particularly well adapted to small lawns and for the ordinary little lawn ant.

Use Poisonous Gas.

For larger ant colonies of other species, bisulphide of carbon, a chemical which can be purchased at any drug store, will be found effective. This substance can be placed in the nest by means of an oil can or small syringe, the quantity required varying from half an ounce for a small nest to two or three ounces or more for a large one. An oil can with a long spout is a convenient instrument as it can be inserted into the nests and the liquid injected without its being brought close to the operator's nose, for the fumes of bisulphide of carbon although not poisonous, are nauseating. To facilitate the entrance into the nest of the chemical, the ant hole can be enlarged with a sharp stick or iron rod. After the bisulphide of carbon has been injected, the opening should be closed by pressure of the foot in order to retain the bisulphide. This will penetrate slowly throughout the underground channels of the nest and kill all the inmates. It is important to remember that while bisulphide is perfectly harmless if kept away from all fire, it is very inflammable and may, under certain circumstances, explode when ignited.

Ant "Cows."

Except for the unsightly appearance of their nests, however, the lawn ants do no appreciable harm. They are frequently noted on roses and on other ornamental and garden plants, and it is naturally supposed that they are doing harm to these. As a matter of fact, it is not the plants that attract the ants, but plant lice. These tiny creatures excrete a sweet liquid of which ants are very fond and which they collect without injuring the plant lice. For this reason plant lice are frequently termed "ant cows." The analogy is emphasized by the fact that ants have been known to take plant

lice into their nests, shelter them through the winter, and return them to suitable plants in the spring very much as men are accustomed to feed and shelter cows throughout the winter, putting them on pasture with the coming of the spring. This is the only way in which ants can be said to injure plants. They enter houses very rarely and, on the whole, may be said to do no harm of any kind except in so far as they lessen the attractive appearance of the lawn. On the other hand, it is quite possible that by bringing up from the lower depths sand and earth they may distinctly increase fertility by forming a top dressing or soil mulch, and at the same time permit better aeration of the earth.

CAUSE AND PREVENTION OF WATER-CORED APPLES.

Since a very early date the water-cored apple has been a source of interest to apple eaters. The cause of water-coring is a common inquiry and the behavior of water-cored apples in storage has not hitherto been studied.

It is a well known fact that certain varieties of apples are more subject to water-coring than others. The Baldwin, Northwest Greening and Gravenstein are especially subject to water-coring, but these are not the only varieties in which it occurs.

It is an old idea that too much watering causes water-coring and without qualifying this statement, a wrong idea is conveyed. It is a fact that leaving the fruit upon the trees too late and allowing them to become over-ripe brings about water-coring.

It is recommended to make more than one picking of fruit to allow the greener colored apples to take on more color. This was done at Fruitland, Iado, by Smith Bros. with Winesaps. This orchard was visited on October 17, at which time the first of the crop had been picked but the poorly colored Winesaps upon the lower and shaded branches had been left to take on more color. This seemed a very good plan but upon closer inspection, it was discovered that practically every apple had developed water-core, even the greener colored ones. Half a hundred of all colors and sizes were found to be so affected. Going to the packing shed and examining the apples of the first picking made about two weeks earlier, not a single apple with water-core was found.

Other observations made with Jonathan and Northwest Greening corroborated the conclusions drawn from Winesaps.

From a physiological standpoint this phenomenon may be explained probably from the fact that respiration of moisture from the foliage is often rapidly checked by the cool weather of the fall, while the roots are still taking up great quantities of moisture. The fruit consequently becomes surcharged with water and the condition known as water-coring results.

Apples in Storage.

The behavior of water-cored apples placed in storage was followed with some interesting results. On October 17 a box of the badly water-cored Winesaps from the Smith Bros. orchard, above mentioned, was collected. Every apple in this box was water-cored judging from the large number that were picked and cut open at the same time and from the same branches. The box was placed in a common basement storage along side of a box picked earlier from the same trees and which were not water-cored. From time to time through the fall and winter, a representative number of these two boxes were examined by cutting them with a knife transversely to observe conditions within. By November 3, about two weeks after picking, the water-coring was rapidly disappearing and even at that date only 40 per cent still showed water-core and these but slightly. On January 18, final examination of the original water-cored apples was made and all of the water-coring was found to have entirely disappeared. Furthermore, I found that the keeping quality of the Winesaps, at first badly water-cored, had been equal to those not so affected.

Similar evidence was secured on the disappearance of water-core from ap-

ples in storage with both Jonathan and Northwest Greenings.

Apparently apples do not show decay quicker on account of being water-cored, although this has heretofore been the common opinion of many fruit handlers as well as growers.—E. P. Taylor, University of Idaho.

FOR BEGINNERS IN GARDENING.

The Rural World received recently a copy of an excellent book for beginners in gardening, "The Gardener; Or City Backyard Gardening by The Sandwich System," by Benj. F. Albaugh. Few persons realize the wonderful possibilities of a small piece of ground when cultivated to the limit of its capacity. Few realize the contentment, happiness and profit in learning to garden in a small way.

The Sandwich System described in this volume is not an idle theory, but a solid successful fact, the result of years of careful, painstaking experiment and highly successful efforts in practical vegetable and flower gardening. The book contains 30 full page illustrations, and photographic examples of the author's experiments. The price is \$1.25 net. It is published by Stewart and Kidd Company, Cincinnati.

USE BEST SEED FOR LAWNS.

One of the mistakes often made in starting a new lawn is the use of seed containing weed seeds, which may lead to permanent injury to the appearance of the lawn. The writer has a lawn, one part of which was started with bluegrass and white clover ten to one, which contained seeds of the coarser perennial grasses such as timothy and orchard grass. These have a more rapid growth than the bluegrass, and produce unsightly bunches of coarse foliage scattered through the lawn in a short time after mowing. Another part of the lawn was sown with a higher priced mixture free from weed seed and after five years, is still comparatively free from all weeds, and entirely so from the ones mentioned.

A few cents more per pounds for the best and purest seed is a good investment in making a lawn, as it will result in a permanently better sod.

CHESTNUT NURSERY STOCK.

Following a public hearing on the subject, the federal horticultural board has determined not to quarantine chestnut nursery stock for the purpose of preventing the distribution of the chestnut bark disease. The board announced that the disease spreads slowly and opportunity has already existed for several years for the distribution of this disease in small quantities to areas where extensive new plantings of chestnut are being inaugurated. Recommendation is made that plantings of chestnut stock be carefully inspected for the presence of the disease.

The next meeting of the National Vegetable Growers' Association will be held at Cleveland, Ohio, September 7 to 10. It will give an opportunity to see some of the best forcing houses and vegetable gardens in the country.

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have ever used." John F. Haag, Mayfield, Okla.: "Your har-
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IN THE ORCHARD AND THE GARDEN

SEASONABLE SUGGESTIONS.

Sow common radishes, winter radishes and other things that will mature before frost.

Blanch the celery by means of boards, paper or drain tile. Earth will do if not banked up when soil or foliage is wet.

Continue weed killing. Do not allow any of them to ripen seed. Sow a cover crop in the orchard if it has not already been done.

Bud peach, plum and cherry trees, if present varieties are not satisfactory.

ORCHARD AND GARDEN NOTES.

A new strawberry bed may be set out in August.

Perennials may be sown now for next season's flowers.

A new strawberry bed may be set this month if the weather is not too dry.

Head lettuce should be shaded some at this time of year. The bright hot sun burns it.

Garden peas are easier to pick when grown on a trellis. Chicken wire is good to use for this.

Keep the sod about the flower-beds and shrubs nicely edged. It adds much to the appearance.

Keep the seed pods off sweet peas and other flowers if foliage and flowers are wanted in perfection.

It will soon be time to take up geraniums and annuals to be grown in the house for winter flowers.

A good strain of hollyhock makes an excellent plant for a late summer screen at the rear of the house.

One of the best all-year plants for the hardy border is the hardy carnation. It requires little attention.

Keep the ferns in a cool, moist, shady place. It may be well to repot them, or at least to change part of the soil.

Late-sown carrots, beets, etc., store much better than those which are sown early and are too old when harvested.

Onions should not be allowed to get wet when being harvested, as this roughens the skin and makes them unsightly.

Swiss chard is one of the best greens for this time of year. The leaves may be cut when six or eight inches high.

The California poppy makes a fine annual for a bright sunny place. It now comes in several shades of white, orange and red.

As fast as the flowers of shrubs and perennials fade remove them and let the strength that would go into the seed go into the foliage.

If strawberry runners are not rooting well, throw a little dirt over ends of the runners or places at which plantlets have started.

One of the best hardy perennials for garden use is the delphinium or hardy larkspur. This comes in six or eight shades and is a splendid plant where a blue flower is desired.

Plume poppy, or *Bocconia cordata* is an excellent perennial for the border. It is quite hardy, grows tall, and fits in well with shrubbery.

There are few flowers that will stand poor soil and lack of attention better than nasturtiums. They come in a variety of colors in flower and foliage now.

When watering the lawn, shrubs, or plants, do a thorough job. Be sure that the soil is moist clear to the root tips. Then don't water again till the plants need water.

Cut gladioli when two or three of the lower flowers are in bloom, put in water, change the water every day or two, snip off half an inch or so of the stalk, and the flowers will open in the house.

BLASTING HOLES WITH DYNAMITE FOR TREE PLANTING.

If care were taken at tree planting time more trees would survive the first year. The writer has planted many trees and has had small loss from first year deaths. The first few years are the most trying on a young tree. It must have moisture to be able to make growth and the roots must have plenty of porous soil to extend in.

The fine root hairs that are known to grow from the roots are very tender, that is, in regard to pushing their way into the subsoil. If the subsoil is hard and tough nothing much can be expected from the tree for some time to come. Trees that make rapid growth do so only from the fact that the subsoil is porous and moisture has a free circulation through it. The ability of moisture coming up from below and feeding the young tree is only brought about by the subsoil being porous.

A porous subsoil benefits a young tree in another way. When the subsoil is porous the moisture going down dissolves such plant foods as potash, lime and phosphorus. These are very important to any growing plant.

Many a promising young tree was planted in a hole just large enough to receive the roots, with no consideration given to the condition of the subsoil. This tree will perhaps stay alive and just barely make growth to the disappointment of the planter. The best results from planting trees have been secured by the writer in this way:

The Dynamite Way.

Good stock was obtained and then the holes were made with dynamite. The places where the trees were to be planted were staked out and holes three feet deep were made. These holes were two inches in diameter. Into each hole was placed a charge of 20 per cent dynamite. These charges were lowered into the hole with fuse and cap attached and shoved down to the bottom with a wooden tamper; a broom handle will do, but never use metal. Some moist earth was placed on top of the charge and lightly tamped. More earth and continual tamping until the hole is entirely filled makes it ready to discharge. Load a row of holes and then go along and fire them.

When the holes are blasted the top soil should be separated from the subsoil. At this time it is well to look out for a pot hole; this can be discovered by taking the tamper and shoving it into the hole. If one is discovered it must be filled. Stone is a good filler. In planting the tree be careful to cut all dead roots and trim the top. See to it that the top soil is placed around and under the roots, the subsoil to be placed on top. Manure or straw placed on top of all will have a tendency to hold the moisture in above the roots.

One only needs look into a blasted hole to see why this is a better way to plant trees. The breaking of the subsoil makes it possible for the moisture to go up and down and besides this it gives the roots every possible chance to grow and the moisture coming up carries with it lime, potash and phosphorus. That is why trees make better growth in blasted holes.—F. A. Kuhn, New York State.

BEST METHODS OF PACKING APPLES IN BARRELS.

The Duchess and similar early varieties of apples must be picked before they are mellow, if they are to be shipped. Pick the apples carefully by hand into a clean basket, preferably one lined with burlap, and take to a cool shed or cellar to be packed.

"There are three steps in the packing of a barrel," says W. G. Brierley of the Minnesota College of Agriculture. "The first is the facing; second, the filling; and third, the tilling. After the bottom is taken out and the nails flattened, well-graded apples, which are representative of the barrel, are arranged in rings, stems down, on the face head of the inverted barrel. They should fit closely. After this layer is in place, a second can be put in or not, as desired. Fill the rest of the barrel with well-graded fruit. After each half-bushel is added, shake the barrel

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gently but firmly to settle the fruit and to fill all spaces. When the fruit is within about two inches of the top, even off and then finish the pack, called tilling, by building up the end two or more inches above the chimes. Put the cover on, with or without a cushion, and then use a press to force the cover into place. Do not neglect to do this thoroughly because apples shrink, and unless tightly packed they will bruise, badly. Some of the fruit will be bruised but not so much as if packed loosely. Nail the head securely, and mark on it the name of the variety, the grade and your own name. Market as soon as possible."

EFFECT OF VARIOUS DRESSINGS ON PRUNING WOUNDS.

Experiments were started at the New York state station in 1911 and conducted for four years to determine whether any coverings are necessary for wounds of trees, as well as the effect on the trees of various substances used in treating wounds. The trees used in the experiments were apples and peaches and the substances used as coverings were white lead, white zinc, yellow ochre, coal tar, shellac, and avenarius carbolineum. The dressings were applied when the pruning was done at different seasons of the year and upon wounds of various ages.

From the results of this experiment as a whole it is concluded that the dressings commonly applied to pruning wounds retard rather than accelerate the healing of the wounds. The effects are the same whether the dressings are applied when the wounds are made or some weeks later when the cut surface has dried out. The effects of the dressings used are so injurious to peach wood that wounds on peach trees should never be covered. For sprayed orchards at least it appears unnecessary to apply dressings to wounds under four or five inches in diameter to prevent the entrance of fungi. It remains to be proved whether dressings have any real value in covering large wounds. The injury caused by dressings probably offsets or even overbalances any possible protection against decay.

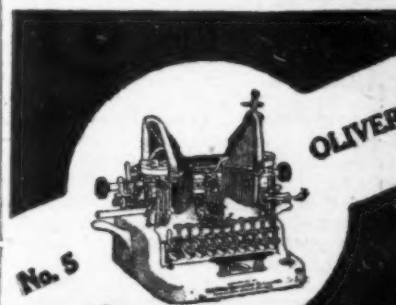
Of the materials used shellac was the least injurious and seemed to exert a stimulating influence upon the wounds for the first season. Shellac adhered to the wounded surfaces least well of all. Avenarius carbolineum and yellow ochre caused so much injury that they should never be used as dressings. Coal tar in addition to causing injury disappeared rapidly, either through absorption or evaporation. Tissues injured by using white lead and white zinc practically recovered from the injury by the end of the second season. Of the protective substances used white lead is considered to be the best.

Cut sweet peas early in the morning or late in the afternoon. Put in water, at once. Keep all flowers from going to seed if you want the plants to bloom well.

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HORSE BREEDING AND RAISING

FOR COMFORT OF HORSES.

Don't overheat at work or on the road.

Keep the stables clean, free from flies and odors.

Make as comfortable as possible in the stall or in harness.

Give water before feeding and all that the animal wants, excepting when hard or fast work is required immediately afterwards.

HOT WEATHER RULES FOR THE TEMSTER.

1. Load lightly, and drive slowly.
 2. Stop in the shade if possible.
 3. Water your horse as often as possible. So long as a horse is working, water in small quantities will not hurt him. But let him drink only a few swallows if he is going to stand still. Do not fail to water him at night after he has eaten his hay.
 4. Do not use a horse hat, unless it is a canopy-top hat. The ordinary bell-shaped hat does more harm than good.
 5. Watch your horse. If he stops sweating suddenly, or if he breathes short and quick, or if his ears droop, or if he stands with his legs braced sideways, he is in danger of a heat or sun stroke and needs attention at once.
 6. If the horse is overcome by heat, get him into the shade, remove harness and bridle, wash out his mouth, sponge him all over, shower his legs and give him two ounces of aromatic spirits of ammonia, or two ounces of sweet spirits of nitre in a pint of water, or give him a pint of warm coffee. Cool his head at once, using cold water, or, if necessary, chopped ice wrapped in a cloth.
 7. If it is so hot that the horse sweats in the stable at night, tie him outside, with bedding under him. Unless he cools off during the night, he cannot well stand the next day's heat.
- Boston Work-Horse Relief Association.

FEEDING AN ORPHAN FOAL ON COW'S MILK.

Occasionally one has the misfortune to lose a mare that has a young foal and has to bring the foal up by hand on cow's milk. It should be remembered in a case of this kind that mare's milk is normally sweeter than cow's milk, but has only about half the amount of fat and other solids that is found in the average cow's milk consequently it is usual to add sugar to diluted cow's milk for feeding orphan foals.

A method of feeding is suggested by J. H. S. Johnson, of "Breeder's Gazette," which is about as follows: Use an old teapot for feeding, with the thumb of an old kid glove, having a few holes punched in it, fastened over the spout. For a very young foal, feed not more than a cupful of milk five times a day. A dessert spoon of sugar to a pint of milk is about the right proportion. Three tablespoonfuls of lime water added to this ration will correct acidity in the stomach. The milk should be perfectly sweet, the utensils should be kept clean, and the milk should be fed at normal body temperature. It should be obtained from a somewhat fresh cow that does not test too high in butter fat. The milk may be diluted with warm water or skim milk.

After it is two months old, the foal will do very well on skim milk alone to which may be added a tablespoonful of linseed meal. The foal should have comfortable quarters, pasture and fresh water. As soon as it is willing to eat, it should have a grain mixture put in front of it, a little at a

time, consisting of possibly one part of wheat bran to one part crushed oats, corn chop or crushed barley. A little alfalfa hay will also be of benefit, especially if the colt does not have much pasture.

HEAVY VERSUS LIGHT HORSES—NEWS AND VIEWS.

Editor, Rural World:—Illinois soon after the close of the civil war made the first importation of a French draft horse in Louis Napoleon, a gray Norman. What have we learned since that time? We have learned that the life of a draft horse, as compared with the Standard-bred trotter, the gaited saddler or any of our pony breeds, is short, that he is more subject to exostosis, especially of the front legs, principally side and ring bones. We have found that the English Cleveland bay transmits blindness with greater uniformity than any breed of horses we have ever handled. We have learned that the experience of the late L. V. Harkness, as shown by the purchase of Indrie by him for \$15,000 to breed on Walnut Hall farm mares, was an expensive undertaking. In no single instance was there any improvement, from using Indrie, although it is generally conceded, that he was one of the best, if not the very best, French Coach horse ever imported.

A prominent farmer, scholar and



Pair of White Mules on a Michigan Farm Starting to Market With Load of Peaches.

something of a politician, a resident of this, Lawrence county, said to me within the last two weeks: "Clement, I have not a horse on my place fit to drive to town six miles, so I seldom get there." This man has been consistently breeding to draft horses, until he has bred out. In 1915 he has bred all his mares to a grade trotter, not standard on his sire's side and only two crosses of standard blood on his dam's side. The change was made to get some mares suitable to raise Missouri mules that would not be a disgrace to the state they were foaled in.

Last season, George Baker, a young farmer in this county, came to me to know where he could trade Jessie Willard, by Anannias, 2:05½, dam by Monta Vista, son of Patron (the first three-year-old stallion to trot in 2:20) for any kind of a good farm mare. I told him to apply to the Hood farm, at Lowell, Mass., for their breeding powders. She has a fine horse colt by R. Ambush, 2:09½, and Mr. Baker is in a fair way of becoming a successful breeder of the best horse in the world—the Standard-bred trotter of the United States of America.

John E. Cramer of Jasper county, tried breeding draft horses in the Missouri river territory, but after losing one or more by miring in a pond used to furnish drinking water for the farm stock, he has discarded all draft blood on his farm, even in his mules that now do the major part of the farm work satisfactorily. A standard mare that has raised a pair of mules, now has a horse colt by Zolock, 2:05½, sire of the first 2:10 pacer of 1915, and who is adding to his list with regularity.

Every breeder in Missouri should watch Zolock's success on Orloff mares. Cresceus, 2:02½, often slightly spoken of as a failure, as a breeder in this country, furnished in 1915 the winners of first and second money in the Russian Derby, for three-year-old trotters. My prediction

is that this pacing son of McKirney, 2:11½—Zolock (p.) 2:05½—will prove one of the most successful sires on Orloff mares ever exported. Russia seems to be the only European country to read the handwriting on the pages of trotting horse breeding, and reading, dares to follow its teaching.

The fastest two-year-old of 1915 so far is the sister to Peter Volo (3) 2:03½, that took a record of 2:13¼, recently.

Missouri now has her third 2:05 pacing stallion to her credit in Russell Boy, 2:03½, the fastest pacing stallion record of 1915 to date, and now looked upon as likely to be a factor in the 1915 Chamber of Commerce stake at Detroit. The other two were Gratt, 2:02½, and Bland S. 2:03½. Here are three race horses, with very different lines of breeding, yet all bred in Missouri. The blood of all three of them is being used in the breeding of successful harness race horses in different parts of the state.

Tom Ervin writes that he has again been obliged to throw his Emperor Peter Anteros colt out of training owing to sickness. This was his main dependence for 1915. This colt belongs to a family of trotters that furnish surprises, and while I have not seen him since he was a short yearling, I shall always think he belongs to the kind that do. Anyway, if he proves successful, as I think he will,

I shall be in shape to say: "I told you so."

The Grand Circuit has opened. Bingara in Massachusetts and Azoff in Illinois are starting out to maintain the superiority of their respective families, (Bingen, 2:06¼, and Peter the great (4), 2:07¼), both owned by the late J. Malcomb Forbes.

No man deserves success more than Mr. Billings, the owner of The Harvester and Lou Dillon, the fastest stallion and mare by the records, and the man who made a present to the Ford Collins experiment station (where the best heavy harness horses in the world are being bred) of Wilmering, 2:12¼. May he prove as good as Superintendent Williams thought he must be when he saw him take his record at Dallas, Texas. I would like to see the French or German Coach or the English Hackney that will show against Wilmering colts out of Carmon mares. They would look like "30 cents" after the contest.—L. E. Clement, Pierce City, Mo.

FEED THE COLT.

Some farmers believe that a colt will make up as a horse the growth that it does not make as a colt. As a matter of fact a colt, or any other young animal, that is not kept growing is very likely never to become as large and strong as it would have been had it thrived while young. The colt should receive the proper kind of feed and be fed liberally. The feed should be nutritious and palatable. Among the best colt feeds is fresh pasture grass. This should be supplemented with oilmeal, corn, oats, bran and alfalfa or clover hay.

Where it is possible to do so the colts should be kept in the stable away from flies during the day, given all the alfalfa or clover hay they will eat, and one pound of the following grain mixture to each one hundred pounds of colts: Six pounds of oats or corn,

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\$250 FOR RELIABLE MAN OR WOMAN; Distribute 2,000 free pkgs. Borax Powder with Soaps, etc., in your town. No money or experience needed. W. Ward Co., 214 Institute, Chicago.

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three pounds of bran, and one pound of oilmeal.

ABOUT TROTTERS AND PACERS.

The new 2:10 pacer Hal S., 2:04½, is a real Hal, as he was sired by Hal Chaffin, p., 2:05¼, out of a mare by Red Hal, p., 2:13¼.

The Western trotting four-year-old, Miss Pinkerton, (3) 2:19¼, has been purchased by Joe Welch, of Kansas City, Mo., and has joined the stable of Billy Taylor.

Tom Patch's mile in 2:08¾, at Youngstown, O., last month, is the fastest ever made on a half-mile track by a trotting stallion in a race. Tom Patch died the next day.

Myron McHenry, 2:15½, own brother of John R. Gentry, p., 2:00¼, Theodore Shelton, p., 2:09¾, etc., died July 13. at Cawker City, Kas., the property of Judge Clark A. Smith, of that city.

Lord Stout (3), 2:14¼, winner of the three-year-old sweepstakes at Youngstown, O., is the fastest three-year-old colt of the year and he is likely to be a 2:10 trotter for his sire Lord Roberts, 2:07¼, before the season is over.

George Gano, 2:02, paced a mile under saddle at Savage, Minn., on July 30, in 2:11½, beating the previous world's record of 2:12, made by Kruger at Lexington, Ky., October 15, 1907. George Gano was ridden by Murray Anderson, and carried 145 pounds.

The Merchants and Manufacturers' Stake, 2:08 trot, at Detroit on July 30 was won by Lee Ashworthy in three straight heats; best time, 2:04¾. The Chamber of Commerce Stake, 2:07 pace, on July 27 was won by Single G. in straight heats; best time, 2:03¼.

Freeman Holmes, a New Zealand horseman, who has been attending the Panama-Pacific Exposition in San Francisco, has bought the six-year-old stallion, Logan Pointer, by Star Pointer, 1:59¼, from J. B. Montgomery of Davis, Cal. Logan Pointer, is out of the noted broodmare, Effie Logan, dam of Jim Logan, 2:01¼, Sir Albert S., 2:03¼, Dan Logan, 2:07¼, and Lock Logan, 2:07¼.

CATTLE FOR BEEF AND FOR MILK

GOOD LIVE STOCK PAYS.

It makes farming permanent.
It returns highest price for crops.
It furnishes market for waste feeds.
It reduces bulk of marketable crops.
It distributes labor throughout the year.
It means cleaner farms.
It makes income steady.
It helps to keep boys on the farm.
It makes farm life more pleasant.

RED POLLS COMPARED WITH JERSEYS AND OTHER DAIRY BREEDS.

Editor, Rural World:—When Mr. A. O. Auten of Jerseyville, Ill., chose registered Jerseys to supply a milk demand in St. Louis, he did not think of adding anything to the value of the Jersey cow, as a breed. System was Mr. Auten's watchword, and 60 registered Jerseys were installed, with every cow's milk weighed and tested. It soon developed that a cow purchased in St. Joseph, Mo., was making a showing in advance of any of the others, and at the close of the first year it was announced that all Jersey records had been beaten by this cow at Jerseyville. It gave as much impetus to the breed as did the earlier showing of Jersey bulls of Setuate. A four-year-test, gave her an average estimated butter yield of 919 pounds of butter. The Hood farm of Lowell, Mass., has since secured the record for Jersey cows, but Mr. Auten opened the way by the purchase of an unheralded cow at St. Joseph, Mo.

The breed will always hold an enviable place as a strictly dairy bred cattle. It would help the breed little, and the army of new readers of Colman's Rural World none at all, to follow their success to the present time.

Hundreds of young men in all parts of the country are asking, what is the best farm cow for the farmer breeder? That question is being slowly answered by the great dual-purpose cow, known as the Red Poll. In the Ohio six months' test 15 years ago, she put in her bid when in a strictly dairy test, Mayflower 2d, by Breadfinder, gave 6,161 pounds milk and 323 pounds of estimated butter. It is a long way from the 919 of the Auten Jersey cow, but it attracted attention, because the test showed the winner, Mary Marshall, a Guernsey cow, had shown a net profit of \$59.41; Mayflower 2nd, \$52.10; the best Jersey, \$50.24; the best Holstein, \$49.43; the best Ayrshire, \$46.07; the best Shorthorn, \$43.01; the best Polled Jersey, \$42.80; the best Brown Swiss, \$41.23; best French Canadian, \$40.63, and the best Dutch Belter, \$38.02. Mayflower 2nd was a beef cow, in a dairy contest and as such a revelation.

Has the Red Poll stood still in the 15 years, since Mayflower 2nd called attention to the breed? Cosmos, an inbred Breadfinder bull, sold at public sale at Omaha for upwards of \$1,400. In 1909, 12 cows finished the club's test. Gold Drop won with 502.10 pounds fat. In 1910 (22 cows), Liza won with 515.25 pounds fat. In 1911 (26 cows), Liza again won with 481 pounds fat. In 1912 (45 cows), Pear won with 419.89 pounds fat. In 1913 (37 cows), Pear again won with 603.66 pounds fat, her fourth consecutive year under test. In 1914 (42 cows), Jean Duluth Pear, a daughter of the winner of the two previous years, won with 546.04 pounds fat.

Jean Duluth Peach is credited with 501 pounds fat, and Jean Duluth Plum with 421 pounds fat. Pear, the mother

of these two, now 10 years of age, weighs 1,400 pounds, and holds the world's record for Red Polled cows.

The Red Poll that won second place in a six months' dairy contest in 1903 is no longer attracting attention. Pear and her half brother, Proctor Knott, are the parents of Jean Duluth Beauty that made 2,108 pounds milk and 90 pounds fat in 30 days. She holds the world's record for Red Polls with first calf, with over 10,000 pounds of milk and 240 pounds butter fat. She herself now weighs over 1,400 pounds. In a later issue I shall try and give other facts indicating there is at least one breed of dual purpose cows.

I spoke to one breeder in southwest Missouri about advertising, and he said: "Why? I can't keep what I want. I could sell three times the number of bulls dropped without advertising." Yet in 1913 only one animal of the breed was imported, and he was from Canada.—L. E. Clement, Missouri.

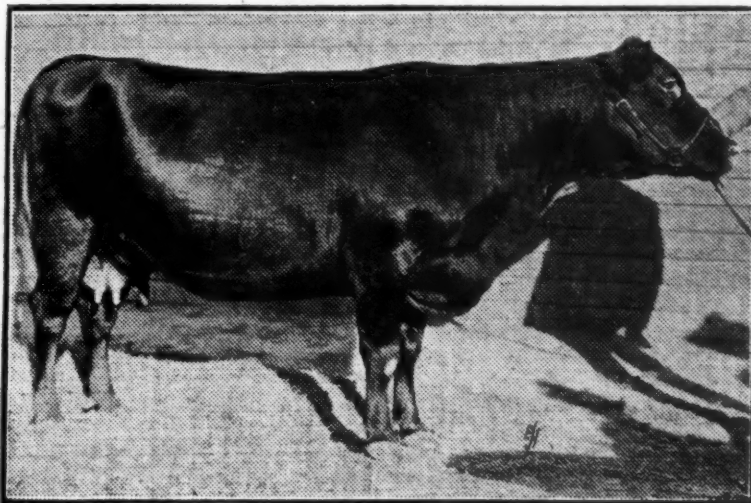
PROTECTING STOCK FROM FLIES.

During the summer months, when cattle are most likely to be bothered with flies, there are many people who wish to know what can be done as a preventive. There are a number of methods sometimes recommended for this purpose, some of which are supposed to keep flies off the animal by virtue of their bad odor or greasy nature, and some which are supposed to be sprayed on to kill the flies. Considerable doubt exists as to the benefits to be obtained from using any of these treatments, or as to the relative value of the different ways of combating flies.

For spraying the backs of cattle at milking time, there is possibly nothing more reliable than kerosene emulsion. The following recipe given by the United States Department of Agriculture, is one of the best ways of making this: Dissolve one-half pound hard soap in one gallon of hot water, and while still at near boiling point, add two gallons kerosene, and emulsify by use of a force pump or agitator of some kind. Dilute with water, one part emulsion to eight parts water, and use as a spray, dip or wash.

WESTERN STOCK SHOW.

The cattlemen of the Rocky Mountain section are all getting back into the breeding game as rapidly as possible. The demand for breeding stock is far in excess of the supply, and many western cattlemen are looking forward to the annual National Western Stock Show, which opens in Denver on January 17, expecting to be able to pur-



Typical Red Poll Cow—A Champion at Illinois State Fair.

chase choice breeding stock during that week. One of the features of this show is an exhibition of heifers and bulls in carloads. At the last show there were over 200 cars of choice heifers on exhibition, all of which sold. At the coming show it is expected there will be more than double that number, and with the present demand an active trade is expected.

The plea to save the heifer calves is evidently having a good effect.

The rivalry between the various cow associations is bound to increase the average of milk production all around.

CREAM OF THE DAIRY NEWS

WHY FARMERS TEST COWS.

To locate the unprofitable animals.

To find the return from feed given and determine results in changes of feed.

To secure information which can be used in selection of animals for breeding purposes with a view to improvement of offspring.

To demonstrate to the public the improvement which can be secured through selection and breeding.

GOOD MILK AND HOW TO HAVE IT —WHY PASTEURIZE?

In the process of pasteurization, milk is heated to a temperature sufficiently high to kill all disease-producing bacteria without producing any changes in milk that could be detected by the senses, such, for example, as taste, smell or sight.

Not all bacteria are killed by this process, even when most carefully done. But those are killed which are capable of infecting the people who use the milk. It also kills the great majority of those bacteria which spoil or sour milk.

When the right temperature is used for the proper length of time, the bacteria remaining in the milk are harmless to man and produce only slow changes in the milk if it is afterwards kept at a cool temperature.

The dangers from raw milk, (in the case of tuberculosis) come from the cow. This danger can be avoided either by using milk only from cows which are known to be free of the disease or by pasteurizing the milk. Raw milk from cows which have not been tested for tuberculosis is always dangerous and for children much more dangerous than it was formerly supposed to be. No one can justify his action, in this day and generation, in feeding young children raw milk from untested cows. All cows producing milk to be used for human food should

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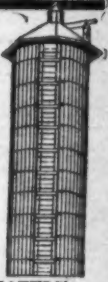
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pasteurization is properly done, which unfortunately, is not always the case. In order to kill all disease-producing bacteria in milk a temperature of 145 degrees F. should be secured and kept for half an hour. This is not always done. Sometimes, the same results are expected by heating to a higher degree for a shorter time. This process, however, is not advisable. What are called flash or instantaneous pasteurizers are sometimes used. The results from this class of machines are always unreliable. Furthermore, milks are sometimes properly pasteurized but afterwards subjected to the danger of infection by careless handling, by hand bottling, by infected caps, or by unsterilized bottles.

Pasteurization should be encouraged, but carefully controlled. This is not an easy matter but recently devised methods give promise that this can soon be easily and quickly done.

Pasteurization should never be allowed for the purpose of "fixing up" or making salable a poor or dirty milk. But milk from tuberculin tested, healthy, clean cows, gathered and handled in clean surroundings and properly pasteurized is the safest milk that has yet been produced.—Dr. W. D. Frost, Wisconsin.

IMPORTANCE OF GOOD SIRE.

Maplecrest Pontiac De Kol Banostine, a Holstein cow owned by the Maplecrest Stock Farm Company, East Claridon, Ohio, has just completed a seven days' test in which she made 32.85 pounds of butter. This is the twelfth daughter of Pontiac Aaggie Kordyke, to make more than 36 pounds of butter in seven days. There is no other sire in the world that has as many 30-pound daughters.

Protect your cows from the torment of the flies by the use of some good sprays.

Hot days, filth and sour milk go together. Poor food, short feed and irregular and careless methods cut the milk supply.

The premium lists for the International Live Stock Exposition are ready for distribution, and may be had on application to the secretary, B. H. Heide, Union Stock Yards, Chicago. The premiums in practically every division have been increased, and the breeders' associations also have made substantial offerings.

SHEEP & SWINE FOR MOST MONEY

IN PASTURE AND PEN.

Separate the flock before breeding time.

Get all lambs and wethers on the market as soon as fit.

See that the flock has shade from the hot sun.

Keep the hogs contented and happy.

You may fool hogs by making their dinner half dishwater, but they will fool you when it comes to the week-end weighing.

CULL THE FLOCK BEFORE TOO LATE FOR BEST RESULTS.

Summer time ought to be "culling time" in the flock. Ewes that have not bred will easily become fat for the market, and these may be disposed of at any time that market prices appear to be attractive.

With the ewes that have borne lambs, there will be a number whose disposal may be a matter of good business, owing to age. These may be fitted for the market at a later time. It is not very hard to pick out the ones that can best be disposed of. But it is a matter of considerably more importance to select from the crop of lambs the ones that should be reserved to take their place.

Here is a lamb whose dam has always been strong and rugged. She has usually presented her owner with two lambs, sometimes with three. The sire of the lamb is a good sire, with plenty of quality, and he was a twin lamb, from a strong and prolific dam. That lamb may not have even as good an appearance as some other lambs in the flock that have no twin mates to share their mother's milk, but as a breeding prospect she is worth not only two, but probably three such. She is one that ought to be kept, and that it would hardly pay to lose. These are a few of the things that ought never to be lost sight of by the owner of a flock of sheep.

Sometimes the owner of a flock knows of a strain of such sheep that another farmer owns. It would be good business to try and get some of them, to take the place of those which he will dispose of. Prolificacy and hardihood count for a lot in a flock of sheep.

In the selection of a flock-header for the future, the same principles should be observed. Two rams may appear to be just worth about the same money, so far as appearances go. But one may come from a very strong, hearty ancestry, prolific and profitable, while the other may have little but his outward appearance to command him. It is a case where the keeping of records proves to be of immense value in getting profits from the flock.

COMFORT FOR THE HOGS.

The architecture of pig-styes is a very varied quantity indeed, and the quaintness of the style of many of the habitations in which pigs are housed is quite extraordinary; but outside appearances do not matter much so long as everything is right with the interior. It is in this respect, however, that we indulge in a little grumble, because some people seem to have the idea that all that is wanted for a hog-pen are the sides and a roof, and the way in which the animals under these circumstances, flounder about in the mud and dirt is little short of disgusting.

Of all the types of hog-pens we have seen we like none better than the one with an outside yard containing the trough, which is filled from the outside, and an inside compartment which is provided with a boarded floor raised a few inches above the brick or concrete pavement. With a

plentiful supply of litter on the boards the pigs are kept warm and dry in the winter. The boards forming the floor should be braced together so that the latter can be lifted up when required to remove the dirt which may accumulate beneath, though this will not be much if the floor be properly made and fixed.—H. Mortimer, Illinois.

BUSINESS METHODS IN FITTING BREEDING HOGS FOR SALE.

A goodly number of pure-bred hog breeders hold a sale each fall, at which time they sell their spring boar pigs and some gilts and older hogs. At the present time a good many of the pigs to be placed in these sales are selected and being fed and fitted.

The future usefulness of a large percentage of these animals depends largely on the good sense and skill of the man doing the feeding. The animal may be brought along on too little feed to make it as useful as it should be, or it may be fed too much, practically ruining it for future usefulness. On the other hand, enough feed may be fed, but not of the right kind of variety.

The man buying an animal for breeding purposes does not get the value of his money if the animal he buys is not properly fed. We have attended a great many sales where hogs sold are practically unfit for breeding purposes; they are loaded with fat, fed anything to make them big. The hog buyer in general wants a big hog, but he wants him big because he will naturally grow that way if given a fair chance and not because he is loaded to the limit with fat.

The breeder to stay in the business must be able to sell animals that will give satisfaction. If he does this he must breed them right and then feed them right. The average corn belt farmer is raising his hogs with the help of a good pasture. Nothing is better for the producing of a good, strong, healthy pig than good grass; it gives him plenty of exercise and is a good bowel regulator.

Let us again say to the man raising hogs to sell for breeding purposes, get them well fitted, be careful not to get them overfitted, feed balanced ration and be sure they have plenty of exercise and pure water.

SWINE SPREAD FOOT AND MOUTH DISEASE.

The susceptibility of swine to the foot-and-mouth disease and the failure on the part of swine owners to recognize its symptoms are giving the federal authorities no small amount of worry in their "clean-up" campaign.

Sore mouth, a common indication of the disease, is an ordinary sequence of hog cholera, and confusions on the feet are frequent in swine which have been driven or shipped. For these reasons little attention is paid by the owners of swine to these symptoms, and unless the herd is located within suspicious territory foot-and-mouth disease may continue in a chronic form for a considerable length of time before discovery. The danger, of course, lies in the ability of these animals to disseminate the disease.

Since the first case of foot-and-mouth disease found in a herd of hogs in Michigan, which later permitted the infection of the Chicago Stock Yards, hogs more than any other animal have been responsible for the spread of the disease. A few months ago, in the outskirts of Philadelphia, in a district containing close to 20,000 swine kept in small lots, several thousand were found to be infected.

On July 29 foot-and-mouth disease infection was discovered to exist in a herd of 20 cattle within the city limits of Hornell, Steuben county, New York. Another herd of 25 cattle, pastured across the road from these, has been exposed and is under surveillance. As no known cases of the disease had previously been found within a radius of over 75 miles, the source of the infection remained a mystery until two days later, when 125 swine, divided among five herds, were infected within a half mile of the first-discovered premises. These swine had evidently had the disease in a mild form for a considerable length of time. Infection

had been carried from these to the cattle through drainage.

This again emphasizes the need, the authorities state, for continued careful examination of all live stock in previously infected areas, especially large herds of swine. Farmers and stock raisers by giving immediate notice of any suspicious cases to the nearest health officer will greatly aid the authorities in their efforts to eliminate this pest, which if allowed to gain a foothold would result in untold damage to the nation.

Owing to the fact that few animals are shipped from the section in which

the latest outbreak occurred, it is believed that no serious or widespread complications will result from this new center of infection.

Select the pigs for breeders from sows that habitually bring large litters.

Unless you have fed roots in winter, you can not realize how valuable they are for all stock, particularly sheep.

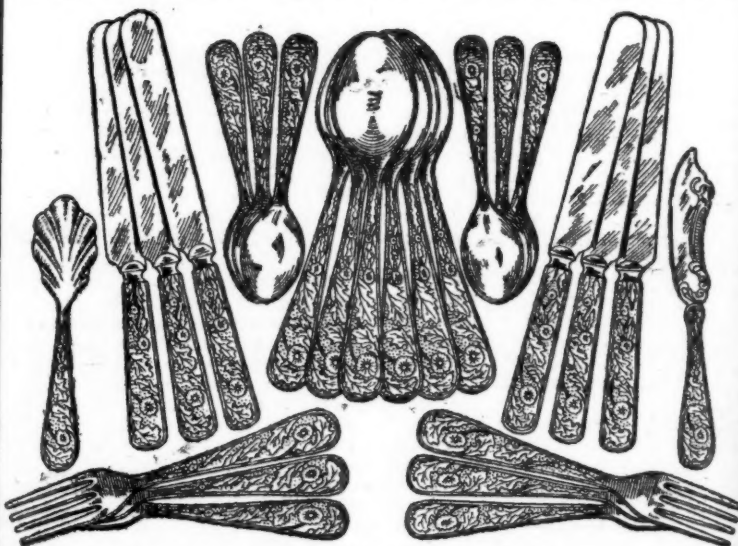
Pigs give the quickest return for money invested, but carelessness and neglect will turn the profits to loss. This is no fault of the pigs.

\$2.98 Gold 1915 25 YEAR \$25 GOLD \$2.98
MODEL 25 GUARANTEED 25 WATCH \$2.98
Here's the watch you always wanted, sent at our risk—you send no money, not even a deposit. Write if you prefer Ladies' or Gents' size, gold sunburst or fancy dial, open face, chain polished or beautifully engraved hunting case with white enameled dial, and we send this elegant 25 year guaranteed time model, stem wind & set watch, C. O. D. to your P. O. or for Free Examination and test at your Express Office. If pleased with it and sure it equals a \$25 Jewel \$25 Gold Watch, pay us our Special Sale Price only \$2.98 and watch is yours. Write NOW. LIGHT WATCH CO., Dept. R 8, Chicago

FREE SILVERWARE

We have just received a fresh shipment of these beautiful 26-piece Electric Silver Sets from the factory. They won't last long. Send for your set today. We refund your money if you are not satisfied.

26-Piece Electric Silver Set



We Want You to Have a Set of This Silverware

We have in the past made many fine premium offers of silverware to readers of Colman's Rural World, but this is the first time we have ever been able to offer a complete electric silver set on such a liberal offer. And please don't think because we are giving away this splendid set on such liberal terms that it is the ordinary cheap silverware which is plated on a brass base and consequently changes color and has that "brassy" look just as soon as the plating wears off. This set which we offer you here is 7 plated on a white metal base, therefore each and every piece is the same color all the way through and will wear for years. As shown in the above illustration there are 26 pieces in this set—6 Knives, 6 Forks, 6 Teaspoons, 6 Tablespoons, Sugar Shell and Butter Knife. Each piece is full regulation size for family use, the handles are handsomely embossed and decorated with the beautiful Daisy design which is now so popular and the blades of the knives and bowls of the teaspoons and tablespoons are perfectly plain and bright polished.

It is only because we buy this set in large quantities direct from the factory that we are able to secure it at a price that enables us to make the remarkable offer below. It is by far the greatest value we have ever offered. We will send this beautiful 26-Piece Electric Silver Set exactly as illustrated and described to any address upon the terms of the following special offer.

We have sent hundreds of these 26-Piece Electric Silver Sets to our readers, and in every case the subscriber has been delighted beyond measure. We are so sure that this 26-Piece Electric Silver Set will please and satisfy you that we make this offer,—and if you are dissatisfied after you get the 26-Piece Electric Silver Set, we will refund your money, or send you another set. You know we couldn't make such an offer unless this 26-Piece is exactly as we represent it.

How To Get This 26-Piece Silver Set Free

Send us a three years' new or renewal subscription to Colman's Rural World at our special price of \$1.00 and 25 cents extra to help pay postage and packing charges on the 26-piece Electric Silver Set—total \$1.25, and the complete 26-Piece Silver Set will be sent you by return mail—all charges paid. If you cannot get a new subscription to Colman's Rural World just send us \$1.25 and we will add a three years' subscription to your own subscription to Colman's Rural World. This offer may not appear again. Remember, for \$1.25 you get Colman's Rural World one year, and in addition we send you the 26-Piece Electric Silver Set—all charges prepaid. Sign the coupon below today before this offer is withdrawn.

Sign This Coupon Today

Colman's Rural World,
St. Louis, Mo.

Enclosed find \$1.25 to pay for a three years' subscription to Colman's Rural World. It is understood that you are to send me the 26-Piece Electric Silver Set—all charges to be prepaid. If I find the 26-Piece Electric Silver Set is not better than you claim, I will return it to you, and you are to send me back my money.

Name

P. O. State, R. F. D.

THE HOME CIRCLE

AND THE KITCHEN

GRANDMA'S DAY.

We'd feel lost without the grandmas,
Who've been spared thro' many
years—

They have helped to make life bright-
er,

They've helped to dry the tears—
For there'll come the time of trials
As we journey day by day,
But grandma's face will brighten.
And 'twill chase the blues away.

Yes, grandma with experience
Does know the ups and downs,
That come to all the mortals—
And grief oft us surrounds.
When the children go to grandma's
Her face then beams with joy,
For it freshens up the mem'ry
Of her own girl and boy.
Oh, back in the years many,
When life was young with her,
She'll see her little children,
And her heart is all astir.

The children love their grandmas
And I am glad 'tis so.
For grandma's our own mother's
And we love them, too, you know.
Of course we love our grandpas,
But this ain't grandpa's Day—
And I can see him smiling as he list's
to what we say.

So now, three cheers to grandma,
God bless her dear old soul!
May she keep young and happy
And blessings on her roll!
St. Louis. ALBERT E. VASSAR.

CANNING FRUIT AND VEGETABLES FOR USE AND FOR SALE.

To the Home Circle:—I furnish my
own table with canned fruits and vege-
tables and sell enough to help on my
expense account. The work has al-
ways been a pleasure to me. Perhaps
that has been due largely to the fact
that I have had so few failures.

I find, in talking with other women,
that when they fail to get good results
it can be attributed to lack of atten-
tion to detail. They do not follow di-
rections closely. They fail to sterilize
thoroughly the jars, tops, and rubbers;
are careless in screwing on tops tight-
ly; try to can fruit without sugar; fail
to keep their fruit and vegetables in a
dry place, or expose canned vegetables
to the rays of light. Many other
things they neglect that seem trivial
at the time, but they awaken to their
importance when they find they have
made a failure!

Canning Tomatoes.

I have heard so many say, "I can-
not keep tomatoes in Mason jars." This
is my method: After removing
skins and seeds from tomatoes, pack
into jars adding a teaspoon of salt
to each quart. Put on rubbers. Screw
on tops, not too tight, place in boiler
and cover with water to within one
inch of lid. After the water begins to
boil, let it continue to boil 45 minutes,
then remove jars from boiler, screw
top down tight and as jars cool keep

The Home Circle is a meeting place
for weekly gatherings of the Rural
World family. All of its members are
invited to meet here in correspondence
and good fellowship. Send lots of
letters and get really acquainted.

The Kitchen is a factor in the Home
Circle that no one can do without.
Help to make it helpful, by sending
for publication suggestions on how to
make and do the things that are
made and done in the kitchen. Tell
others your ideas and experiences.

tightening top until you can no longer
turn it. Place jars in a box and cov-
er or wrap in paper so as to exclude
light. I never have had a can of toma-
toes spoil when treated this way.
When filling the Mason jars keep the
jars, rubbers and tops in a vessel of
boiling water. I never have mold
form on fruit.

I am using the Economy jar in
preference to all others as I find, no
matter how long fruit and vegetables
are kept, they retain their flavor. For
peas and corn I do not advise the use
of Mason jars, though I've had fair
success in using them if I did not keep
them over one season.

Expensive Outfit Not Needed.

It is unnecessary to have an expen-
sive outfit for home canning. A wash
boiler with a tight fitting lid and a
false bottom made by cutting a piece
of mesh wire to fit bottom of boil-
er will do as good work as commercial
canners. If I have only a few jars to
can, say six or seven, I use a lard can
with a tight cover.

When making jelly, preserves and
marmalade, study the easiest meth-
ods. So much can be learned by read-
ing and by exchanging ideas with
friends and neighbors.

From a commercial standpoint,
there is no doubt but a good profit can
be made and once you can prove the
excellence of your goods you can in
a short time find a good market for
your surplus, especially when you so-
licit the patronage of your city friends.
There is a good profit even if you sell
to the grocer and compete with whole-
sale prices. Once you are established
they will renew their order each sea-
son.

The Profit in It.

I took three eight-pound baskets of
plums, each of which I would have
sold at Kansas City market for 20
cents. After converting them into jelly
and butter I found I could get \$5.60
for the finished product. While all
fruits might not net so good a profit,
they will all give very attractive re-
turns.

Statistics show that the food supply
of this country is not keeping par with
the increase in population. Something
must be done to meet food demands.
We must do more extensive gardening
and the housewife must realize the im-
portance of conservation of all avail-
able food stuffs.—Mrs. A. B. Crawford,
Missouri.

NOTES FROM KENTUCKY.

Dear Home Circle:—We have sev-
eral nests of mocking birds about our
premises. While we believe that this
is a happy little fellow with no cares
at all, I positively know that they do
have cares and anxiety to contend
with the same as we do. One day
while in the garden we heard these
birds making a loud noise and we
soon found that the cause was a large
black snake in the tree. At other times
we have seen a cat, again this morn-
ing a large crow was frightening the
little birds as he sat over the mock-
ing bird's nest, and in the night I can hear
the same flutter and cry from the pa-
rent birds when some creature is try-
ing to get their young. So friends, we
should all really be more content. No
creature is exempt from trials and
fright. When we imagine everything
is happier than we, it is a delusion.
All life of every kind must undergo
trials and hardships, pain and suffer-
ing. Therefore, let us be happy every
moment we can.

Aunt Ray, just let those sweet clo-
ver plants go to seed. You will then
have a nice little start to sow more.

A field all abloom in the yellow is
surely a beautiful sight, especially
when waving by the breezes. The yel-
low is past the blooming stage now,
but the white has taken its place and
sways out thoughts of peace and plen-
ty.

Dairying is still the order of the day.
Some dairymen are displeased because
of milk souring. We are using our
cistern that we had dug to cool our
milk in. This is a good way to keep
the milk sweet.—Mrs. J. T. Mardis,
Kentucky.

HOME-CURED MEATS MOULD IN DAMP WEATHER.

A Missouri housewife recently
wrote to the College of Agriculture at
Columbiana making the following in-
quiry:

"I would appreciate very much any
advice you can give me on what is the
best thing I can do to keep our sum-
mer hams. We kept them in salt until
thoroughly salted then hung them up
to dry and smoked. Now they are
moulding."

Y. F. Trowbridge of the department
of agricultural chemistry in replying
said: "It should be emphasized that
mold does not spoil cured meats. Some
persons in purchasing country cured
hams insist that the mold shall be left
on as a proof that the meat is genu-
ine country-cured meat. Some rec-
ommend dipping the meat in boiling
hot water to stop the molding. This is
only temporary, as the mold will
start to grow again if the damp
weather continues.

"In prolonged season of wet, muggy

weather cured meats are certain to
mold. This molding of cured meat can
be checked by hanging the meat
where there is a good circulation of
air. Cured meats should never be
hung in a damp basement. If the
smoke house is tight enough to keep
out the skipper fly so that the meat is
left hanging in the smoke house a
smudge built every week during damp
weather helps keep down the mold.
Sacking of meats does not stop the
molding. If meats are wrapped tight
to keep out the skippers the wrap-
pings should be done first with cloth
and then with paper. If paper is used
first it will stick badly to the meat af-
ter it molds. We find it a very good
practice to encase the meat in a paper
flour sack, tying the neck of the sack
very tightly around the string by
which the meat hangs. The meat is
then hung so that the pieces do not
touch each other."

"A VOICE FROM THE SILENCE."

One of the most interesting stories
that has come to the Rural World for
a long time is "A Voice from the Sil-
ence," by Howard L. Terry, a former
contributor to this paper. It is a story
of pioneer days in the Ozarks, and one
well worth reading. Love and ro-
mance, honor and courage, feud and
intrigue, pathos, hate, robbery, "rakin"
games, and a score of other emotions
are cleverly woven into a plot that is
fascinating and uncertain from begin-
ning to end. And all the time the
reader wonders who is to be the lucky
man!

Throughout the story there is also
an excellent description of a co-op-
erative scheme for selling farm prod-
ucts that is undertaken and success-
fully practiced by some of the char-
acters. The book sells for \$1.40, post-
paid, and is published by The Pali-
sades Press, Santa Monica, Cal.

Home Canning Time Table

THERE is an increasing canning
interest in commercial canning
at home. The United States De-
partment of Agriculture has been in-
strumental in forming canning clubs
among farm women and girls, and in a
pamphlet they give a table which tells
how long different products must be
cooked in the cans. The department
recommends the use of commercial
canning outfits, and on application to
the office of farm management, United
States Department of Agriculture,
Washington, D. C., any person can get
a list of reliable firms that make dif-
ferent kinds of commercial canners.
It is admitted that good results are
obtained with nothing more ambitious
than the customary wash boiler, but
one valuable feature of these commer-
cial portable canning outfits is that
they may be handled by children as
well as by older persons, and young
girls who are trying to learn to can
may use them out of doors without in-
terfering with the routine kitchen
work. There is also a commercial
portable hot-water bath outfit which

may be purchased to take the place
of the home-made outfit.

In the table column No. I refers to
the home-made outfit, which is nothing
more than a washboiler. No. II is a
waterseal outfit, hot water and steam
combined. This shortens the time of
boiling. The third or fourth canning
outfits (Nos. III and IV), depend en-
tirely on steam rather than hot wa-
ter for cooking the fruit or vegeta-
bles and are called "steam-pressure
cookers." The cooker with five pound
pressure (No. III) does the work in
much quicker time than the waterseal
outfit, and the cooker with a pressure
of 10 pounds or more (No. IV) in some
instances will accomplish the work
in half the time needed for the five-
pound-pressure cooker. For example,
corn may be satisfactorily prepared
in the five-pound-pressure cooker in
60 minutes and in the 10-pound-pres-
sure cooker in 40 minutes.

For altitudes of 4,000 feet or more
above sea level add about 25 per cent
time to this schedule.

Canning Time Table.

[In "size of can" column, No. 2 and No. 3 are standard sizes, about equivalent to 1 pint and 1 quart, respectively.]

Products to be canned.	Size of cans, No. 2, pint, No. 3, quart.	I.	II.	III.	IV.
		Home- made hot-water bath outfits, at 212°.	Water- seal outfits, 214°.	Steam pressure cooker, 5 pounds or more.	Pressure cooker, 10 pounds or more.
		Minutes.	Minutes.	Minutes.	Minutes.
Apples, whole or sliced, for pie filling	3	15	15	12	8
Apricots	3	15	12	12	8
Asparagus and other greens	2 or 3	20	15	12	10
Apple cider	2 or 3	20	15	12	10
Beans, lima or string	2 or 3	90	60	60	30
Blackberries, dewberries	2 or 3	12	10	6	3
Cherries, peaches	3	15	12	10	8
Corn (without acids)	3	240	180	60	40
Grapes, pears, plums	3	15	15	10	8
Hominy	3	60	50	40	25
Huckleberries	3	10	8	6	3
Okra and tomatoes combined	2 or 3	60	50	40	25
Peas, beets, carrots, etc.	2 or 3	60	50	40	25
Raspberries	2 or 3	15	12	8	5
Sauerkraut	3	60	50	40	25
Sweet potatoes	3	80	70	60	40
Strawberries	3	15	12	8	5
Tomatoes	2 or 3	30	20	10	8
Tomatoes and corn	3	90	70	60	40
Grape juice	3	15	15	10	8
Quince	3	30	25	15	10
Pumpkin and squash	3	30	25	15	10
Fig	3	30	25	15	10
Fig	3	30	25	15	10
Rhubarb	3	15	12	8	5

Big Sleeping Doll FREE



This fine sleeping
doll is nearly two
feet tall, and is all
the rage. She has
slippers, complete
underwear, stock-
ings, etc. Dress is
very prettily made,
half length, and
trimmed with lace;
also has a little
chateleine watch,
with fleur-de-lis pin.
You can dress and
undress this doll just
like a real baby. Has
curly hair, pearly
teeth, rosy cheeks,
beautiful eyes, and
goes to sleep just as
natural as life when
you lay her down.

This doll free for
selling only 10 of our
magnificent art and
religious pictures at
10 cents each. We
trust you with pic-
tures until sold, and
give an extra sur-
prise gift for promp-
tly just your name.

Send no money—just your name.
PEOPLE'S SUPPLY CO., Dept. R. W.,
St. Louis, Mo.

Rainy Weather and Its Effects on Life and Living

Dear Home Circle:—We have had days that dawned in rain, went into night in rain, spent the interim in rain; there has been the light skirmishing rain, and the crescendo of battle rain, until now after two months and a half of showers—"rainy weather's my choice," and having had a week of dry days and fleecy moonlit skies at night, I am growing lonesome for the patter on the panes, and the hissing, swirling, splashing sound from the street!

Rain! Rain! It is said we owe the abundance of fruit and vegetables to its beneficence. Such cabbage as one buys so cheap, such tomatoes, and potatoes!

Other summers I bought tomatoes at 4 and 5 cents apiece, cabbage at 3 cents per pound and potatoes at high price; now a peck of potatoes costs 10 cents, and I get 12 huge ripe tomatoes for 5 cents. The market is glutted with produce, I've been told, and the truck farmers are not making money. However, poultry is not cheapened by the downpour, and the piece of meat that savors our vegetables or forms our soup costs a pretty penny; the loaf of bread has diminished in size, and is sold at the old price; one has to have soap, coal oil, and gasoline; the rent day arrives on schedule time; the premiums on insurance fall due; the collection box is passed around in church, and young feet are severe on shoes.

My life is so altered lately that like the old woman I could exclaim: "Can I be I." Had I any of the dear little dogs that used to love me, I'd follow her example and let the day decide. As it is I sat on the doorstep a long time yesterday playing with a puppy and musing over the situation. No one in the family is working—there have been months of enforced idleness; there are no regular meal hours any more. They go out after a modest breakfast, and perhaps do not return

until evening, there is not such a demand for clean skirts, etc., and the washing is not as large as of old. I had just hung out the weekly wash when I sat down to play with the dog. It was cool and shady on the door step, and I could think deeply as I fondled the silken ears.

People on farms read about dull times in cities, but how far they are from knowing the truth! There has been an exercise of altruism unknown for years, the only beautiful happening of the time, brothers have helped brothers, sisters have come to the aid of sisters, and friends have taken care of friends. I have a dear old friend whose table for the first time in her life is spread with scanty store. The change in her affairs brings home very forcibly to me the state of the country. I used to spend one afternoon every week, and lunch with her.

The other day she served corn, tomatoes, bread and butter washed down with water, and as I partook of the repast, thought recalled the story of days when Continental soldiers ate sweet potatoes and gloried in the meal. She is the descendant of men of the revolution and is brave in the face of adversity.

This is why I am lonely when it is not raining. The darkness and pensiveness fits in so sympathetically with a lonesome household. The sunshine is so cheerful that it is almost mocking. I am not fond of it any more.

In a small way we have endeavored to be of service. Our large house has been shared with friends who lost their all. The boys gave surplus clothing, shoes, hats, etc., and what bed clothes, aprons, waists, etc., I found over and above my absolute wants, went to others.

When you read about Belgium or Mexico, friends, know St. Louis is in like throes, excepting war.

I have been through a couple of panics, but the present time and back as far as October last, surpasses the desolation and destitution of the panic times.

It is no unusual sight to see people picking up bones or crusts on the streets. The children's bread is not given to dogs now, but scraps thrown to wandering dogs are often gathered up and given to the children.

Yes, rainy weather is now my choice.—Mrs. M. H. Menaugh, St. Louis.

Of Interest to the Housewife

1. Cooking Green Vegetables.

By Abby L. Marlatt, University of Wisconsin.

If we think of vegetables in terms of the 85 per cent to 95 per cent of water diluted with color, flavor and a small amount of solids, then the price of water masquerading as vegetables seems high.

But, if we think of the need for flavor and mineral matter to induce a better appetite and keep the body in good health the purchase of the vegetables, in season, will seem less costly than tonics from the drug store.

It is most important when preparing vegetables to save the portion which gives flavor and that which provides the mineral matter needed by the body. At least 20 per cent of all iron required by the body has its source in vegetables.

Experiments have shown that flavor and mineral matter are lost in less or greater measure when these vegetables are cooked in too much water which is later thrown away. It is best to use as little water as possible in boiling green vegetables and to keep this water to be used later in soups or sauces.

The loss of mineral matter from vegetables through boiling may be as high as 35 per cent in spinach, celery, cabbage, Brussels sprouts, cauliflower, carrots and not more than 6 per cent when these same vegetables are steamed.

Flavor, when its source is from a product which is readily given off in steaming, may be retained by cooking at temperatures below the boiling

point. It is for this reason that peas, asparagus, celery, cucumbers, and carrots should be cooked at simmering temperature.

Strong flavor may be lessened by cooking rapidly in open vessels. This is true of cabbage, cauliflower, onion, and pepper. Cabbage may be "cooked" at the end of 20 minutes. Longer time develops strong flavor and, in hard water, may darken the color.

Those fresh green vegetables, which consist of leaves and stems may be steamed; or may be cooked without added water if heat is applied slowly, causing the water in the leaves to escape in such amounts that the plant cooks in its own juices.

Delicately flavored vegetables, as peas, string beans, squash, and rutabagas, may be served in their own juices, seasoned only by salt, pepper, and butter. Brussels sprouts are improved in flavor if cooked in meat broth made as for soup stock, or in water flavored with bouillon cube. Carrots, celery, cucumbers and summer squash may be improved in appearance and flavor by first cooking in water, then draining and covering with white sauce.

The green vegetables are cheapest in the season of the year when they are most needed by the human body. At other seasons, the expense is far beyond the benefits to be derived from their excessive use. Canned vegetables then should take their place even though the flavor and mineral matter may not be so satisfactory.

THE FARMER'S JOY.

I love to watch the grains of corn,
That drop into the ground;
I love to plow and mulch the soil,
And see the rain come down.

I love to lift my eyes and gaze,
On fields of ripened grain;
I love the quiet, shady nooks,
Where there's no greed for gain.

I love to watch the browsing herd,
That tramples o'er the lea;
I love the ever rolling plain,
As far as eyes can see.

I love the dear old wornout hills,
For here we trust in God;
I love to praise His holy works,
Tilling the precious sod.
Texas. ROBERT E. IGO.

THE SUMMER DIET.

One frequently hears the unmodified statements that it is well to eat very sparingly in the summer time, and that very little or no meat should be taken.

In summer, it is true that there is not the body demand for the concentrated fuel, and, so we instinctively turn from the rich, fatty foods, such as fat meats, rich gravies, pastries, and fried foods.

Because meat contains in large proportions protein which is a quick fuel, it is reasoned that therefore meat should be eliminated from the diet. The amount of meat may well be cut some, yet it is reasonable to assume that there is need for its tissue building value in summer as in winter, and it has not yet been shown that other protein types of food adequately take the place of meat.

Lusk in his "Human nutrition" makes this statement: "But if a cool climate, there is no strongly substantiated argument why one should not

follow the general custom of taking a medium amount of protein in moderate accordance with the dictates of his appetite."

In our eagerness to trim the corners let us not forget that the ill-effects of under eating are no less to be avoided than those resulting from over-eating, and that the advice of Mrs. Means, "Get a plenty while you're a gittin'" is a safe dietetic maxim for most of us to follow.

WHIPPING CREAM.

Often the housewife finds that the cream she has will not whip. Dairy specialists point out that, to obtain satisfactory results in whipping cream, it should be cold and of the right thickness, containing about 30 per cent or more of butterfat. Ordinary cream, designated as coffee cream, is altogether too thin to give good results. The whipping cream, as delivered by the milkman, contains 30 to 40 per cent of butterfat. Thoroughly chill the cream before whipping by placing it in a covered bowl on the ice. The whipping process is also aided and hastened by standing the bowl in a pan of ice water.

When the seats of your wicker chairs begin to sag, wet them thoroughly on the underside and turn upside down in the sunshine to dry. They will shrink back into place.



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Oxidized frame, prettily designed, 10-inch diameter. Mesh Bag is all the rage. Very handsome. Given free for selling 20 large and religious pictures at 10c each. We trust you will picture until sold, and give 60 beautiful postcards as a extra gift for promptness. Send name. A postcard will do. People's Supply Co. Dept. W 716 Lucas Ave., St. Louis

NEARLY FREE THIS BIG 3½ FOOT TELESCOPE with Patented Solar Eye Piece

Here's a bargain. Never before has it been possible to obtain a Multi-focal telescope with solar eyepiece attachment for less than \$8 to \$10. But because we have made special arrangements with the inventors, and pay no patent royalties, and have them made in tremendous quantities by a large manufacturer in Europe with cheap labor, we are enabled to give you this outfit, provided you will send us \$1.00 to pay for a one year, new or renewal subscription to COLMAN'S RURAL WORLD and 35 cents extra to help pay mailing and packing charges on the telescope outfit (total \$1.35). Think of it—the solar eye-piece alone is worth more than that amount in the pleasure it gives—seeing the sun spots as they appear, and inspecting solar eclipses.



The Excelsior Multi-focal Telescope has a multiplicity of uses—its pleasure is never dimmed—each day discovers some new delight. Distinguish faces blocks away. Read signs invisible to the naked eye. Use it in cases of emergency.

Take the Excelsior Multi-focal Telescope with you on pleasure and vacation trips, and you can take in all the scenery at a glance—ship miles out; mountains, encircled by vapors; bathers in the surf; tourists climbing up the winding paths.

Used as a microscope it is found of infinite value in discovering microbes and germs in plants and seeds, etc. The Excelsior Multi-focal Telescope is mechanically correct—brass-bound, brass safety cap to exclude dust. Powerful lenses, scientifically grounded and adjusted. Handy to carry—will go in pocket when closed, but when opened is over 3½ feet long. Circumference, 5½ inches. Here-tofore telescopes of this size, with solar eyepieces and multi-focal lenses, have sold for \$8 to \$10, or even more. We do not claim our telescope is as nice and expensive in every particular of construction as a \$10 telescope should be; that would be unreasonable; but it is a positive wonder for the price. Each telescope is provided with 2 interchangeable objective lenses—one for ordinary range and hazy atmosphere, the other for extra long range in clear atmosphere, increasing the power and utility of Telescope about 50 per cent.

COULD COUNT CATTLE NEARLY 30 MILES AWAY
F. S. Patton, Arkansas City, Kansas, writes: "Can count cattle nearly 30 miles; can see large ranch 17 miles east, and can tell colors and count windows in house."

L. S. Henry, The Bronx, New York, writes: "Your solar eyepiece is a great thing. I witnessed the eclipse at the Austrian Tyrol when the sun was almost 80 per cent concealed."

COULD SEE SUN SPOTS
Rutland, Vt. Feb. 16, 1910.—Telescope arrived O. K. I have seen the spots on the sun for the first time in my life.—Dan C. Safford.



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Send us \$1.00 to pay for a one year extension on your subscription to COLMAN'S RURAL WORLD, and 35 cents extra to help pay mailing and packing charges on the complete telescope outfit, which will be sent postpaid (total amount to remit, \$1.35). Absolute guarantee of satisfaction or money refunded. DO IT NOW.

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THE RURAL WORLD PATTERN SERVICE



In ordering patterns for waist, give bust measure only; for skirts, give waist measure only; for children, give age only; while for patterns for aprons say, large, small or medium.

1259. Ladies House Dress.

Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires $6\frac{1}{2}$ yards of 36-inch material for a 36-inch size. The skirt measures about $2\frac{1}{2}$ yards at its lower edge.

1389. Ladies' Shirt Waist.

Cut in five sizes: 34, 36, 38, 40 and 42 inches bust measure. It requires $2\frac{1}{2}$ yards of 36-inch material for a 38-inch size.

1038. Ladies' Dressing Sack.

Cut in six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 36-inch material for a medium size.

1365. Ladies' Apron.

Cut in three sizes: Small, medium and large. It requires $4\frac{1}{2}$ yards of 36-inch material for a medium size.

1374. Girls' Dress With Body Lining. Cut in four sizes: 4, 6, 8 and 10 years. It requires $3\frac{1}{4}$ yards of 36-inch material for a 6-year size.

1259. Girls' Dress, With Bloomers.

Cut in four sizes: 2, 4, 6 and 8 years. It requires 3 yards of 36-inch material for the dress and 1 yard for the bloomers, for a 4-year size.

1371. Girls' Dress.

Cut in four sizes: 2, 4, 6 and 8 years. It requires $2\frac{1}{2}$ yards of 36-inch material for a 6-year size.

1189. Girls' Apron.

Cut in five sizes: 2, 4, 6, 8 and 10 years. It requires $1\frac{1}{2}$ yards of 36-inch material for a 6-year size.

1296. Dress for Misses and Small Women.

Cut in four sizes: 14, 16, 17 and 18 years. It requires 7 yards of 36-inch material for a 14-year size.

1388. Ladies' Skirt With Stay, With or Without Suspenders and Pockets.

Cut in six sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires $4\frac{1}{2}$ yards of 44-inch material for a 24-inch size, which measures about $2\frac{1}{2}$ yards at the lower edge.

1384. Girls' Dress.

Cut in four sizes: 6, 8, 10 and 12 years. It requires $3\frac{1}{4}$ yards of 44-inch material for an 8-year size.

THE MERRY GAME CLUB FOR OUR BOYS & GIRLS

Conducted by the President—Evelyn Dale Nichols, 1527 35th St., Rock Island, Illinois.

Hello Kiddies:—Our first prize game for this week was sent in by Marjie Updike of North Baltimore, Ohio; whose game is called "The Dictionary."

The Dictionary.

(Described by Marjie Updike.)

Any number of players can take part in this game. The players are provided with paper and pencil, and the "leader" who begins the game names a long word. Each of the players write this word on their paper and try to see how many different words can be coined from the letters contained in it. Any letter may be used as many times as desired in different combinations. Foreign terms do not count. At the end of 15 minutes (or any selected time) lists are handed to "leader" who looks them over and judges the winner. Sometimes it is agreed to strike out all words that two or more players have written, counting only those that no one else has thought of. All combinations that do not spell words as well as all misspelled words, not only do not count, but they take off one other word from the list. The player who has the largest list of correct words is the winner and may be "leader" next time.

Marjie—I am sure our little members will find your game very interesting, especially as a rainy-day game. I will send you a prize shortly. Our next prize game was sent in by Ruth Burrows, of Buena Park, Cal., but as Ruth's game had no name we will have to name it. We will call it "Ruth's Guessing Game."

Ruth's Guessing Game.

(Described by Ruth Burrows.)

One player begins the game by saying: "I am something." And then proceeds to explain as follows: "I am very clear. You can see clear through me. I am part of something you live in. I look well dressed in fine lace or muslin," etc. The players all take turns in guessing what the "Something" is. The correct answer to above, of course, is "window" but anything may be chosen and description changed to fit it. The player giving first correct guess chooses "something" for the next game.

Ruth—This is a nice quiet game, I am sure; and I will take much pleasure in sending you a prize soon. Our next prize game was sent in by Agnes

1392—1368. Ladies' Costume.

Waist pattern No. 1392 is cut in six sizes: 34, 36, 38, 40, 42, and 44 inches bust measure. Skirt pattern No. 1368 is cut in six sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It will require $1\frac{1}{2}$ yards of lining for the skirt foundation and $8\frac{1}{4}$ yards of 36-inch material for waist and flounces for a medium size. The skirt measures about 3 yards at the foot. This calls for two separate patterns, 10¢ for each.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each additional pattern desired.

Fill out this coupon and send it to COLMAN'S RURAL WORLD, 718 Lucas Ave., St. Louis, Mo.:

Pattern No. Size Years

Bust in. Waist in.

Name

Address

Burrows of Buena Park, Cal., whose game is called: "Spin the Bottle."

Spin the Bottle.

(Described by Agnes Burrows.)

The players form a circle either sitting or standing. One player sits or stands in the center of the circle with a bottle. This player begins the game by laying the bottle on its side and whirling it around and at the same time the player must say something like the following: "This bottle will point toward my chum," or "This bottle will point out the prettiest person here," or any other like phrase one thinks of. The player in the circle to whom the bottle points when it stops whirling must take the center of the ring and whirl the bottle and must also say something while the bottle is whirling, but it must be something different than the other player has said. This continues until players grow tired.

Agnes—Your game is very nice and I will send you a prize for it shortly. I am glad you like the Merry Game Club so well.

Jennie Higginbotham, Callahan, Fla.—Your game "Hiding the Thimble" has already been printed, but I will send you a prize anyway for your interest and trouble in writing and sending the game.

Eatie Higginbotham, Callahan, Fla.—Your game has been printed before, but I will send you a prize for your trouble in sending the game to me.

Doris Sheddicks, Rich Hill, Mo.—Your game "Spin the Platter" has already been published, but will send you a prize for writing same and sending it in.

Following are names and addresses of members from whom games have been recently received: Eva Jinks, Quanah, Tex.; Vashti Dunning, Aulander, N. C.; Bessie Cox, Shawnee, Okla.; Henry Bieber, Eureka, S. D.; Veda Kinder, Daisy, Mo.; Lillian Wright, Roff, Okla.; Merrill Drummond, Eastville, Va.; Bessie Easter, Hillsboro, O.; Gladys Shideler, McLane, Kans.; Mildred Mullet, Ottawa, O.; Anna Belle Dilley, Moscow, Kans.; Mary Hallows, Bowling Green, Mo.; Mildred Church, Brinkhaven, O.; Elizabeth Platt, Apache, Okla.; Daisy Kemp, Tyrone, Okla.; Sid Richmond, Eoliver, Mo.; Lillie M. Senner, Mechanicsville, Md.; Sidney Eubanks, Russellville, Ark.; Florence Elizabeth Mack, Huntsville, Ala.

Now good-bye, little friends, until next issue.

TO DISTINGUISH LINEN FROM COTTON.

Linen is hard to distinguish from cotton especially when the cotton is mercerized or the material heavily starched and well finished.

If the threads are carefully examined it will be found that the cotton thread is the more exact in twist, becomes fuzzy when rubbed between the fingers and when quickly broken the tufted ends usually curl up.

The linen fibers are long and when spun into thread are strong, smooth, and lustrous. These threads are rather irregular in appearance and break with the straight uneven ends.

When burned, the ends of cotton thread spread out like a paint brush, while linen threads are even and compact.

A drop of glycerine on linen causes it to become more transparent but does not effect cotton in the same way.

When torn the linen gives shrill noise, the cotton has a duller sound.

There are several chemical tests for distinguishing between linen and cotton, but these are not practical for the average house wife and are not always sure. The microscopic test is the only one which is absolutely certain in all cases.

If one wishes to be sure she is buying linen, it is well to remember that one seldom gets linen when paying cotton prices.

TO MAKE PEACH BUTTER.

Select red cling peaches and wash well. Peel the amount needed and cook with the stones in them. Let cool and then squeeze out the seeds.

To three gallons of peaches, add one gallon of sugar. Cook till thick enough, then seal, using quart jars.—Sarah L. Spears, Arkansas.

What Rearton Saw

By Vaughan Kester

(Copyright, 1915, The Bobbs-Merrill Co.)
(Continued from Last Issue.)

REARTON returned and saw the dark things that were black in the shadows of the shore. He waded in among them, pushing his way through the rotting mass that seemed to sob and sigh as they struck one another,—for his progress in their midst created movement. Hours he searched, turning over those that floated face down that he might see their features and miss none. All through the night, aided by the moon's rays, he continued his ghastly quest until it was day.

He, himself, was changing rapidly. The wild light of delirium and madness shone in his blood-shot eyes. As he thrust the drowned bodies from him, I could see him laugh with a foolish hanging of the lip from which the saliva dripped and frothed.

At last when he was on the point of abandoning the search, one body drifted out from the shore until it was fair beneath the moon, and he saw, within the circle of mildew that clung to hair and garment, his son's face. A white film covered the open eyes, the flesh was blue and horribly swollen. Without hesitation he took the hideous reeking mass into his arms and carried it ashore.

I looked again to see the waters, the moon and all beneath the night the bodies of the dead, but they were blotted out. I could see Rearton alone where he had taken the body back from the beach. He had placed it upon the ground and covered it with his coat. Not far off he was on his knees, digging in the loose earth. This was all I saw in the somber grayness of the dawn. Skulking in the gloom that foretold the day came a shape across the waste. It paused upon a hill of sand that the wind had blown together, and with head erect and ears drawn up, sniffed the air. Then it followed the scent.

It came near where Rearton dug with bare hands and a fragment of plank from the wreck. Came near, and squatting down, watched him for a space as he labored. Then with stealthy tread it went forward.

A growl of greedy satisfaction attracted Rearton's notice. He looked up and saw the hyena tearing at his son. Snatching up the piece of plank with which he had been digging, he rushed at it. Man and beast met with a shock, and I saw the animal leap repeatedly at Rearton's throat, its teeth tearing and lacerating his face and throat. With the desperate strength wielded his weapon and succeeded in beating off his furious antagonist. Then a single glow dealt with savage fervor stretched it lifeless at his feet. Without stopping to tie up his wounds he resumed his work upon the grave.

Soon the hole was sufficiently deep, and he placed the body in it and covered it with earth. To make sure that the grave would not be molested, he brought what portions of twisted beams he could carry away from the wreckage that strewed the beach and piled upon it until a great heap marked the place of burial.

Twice the sun sank, and twice it made radiant the heavens before the task was completed to his liking.

He had been mad, crazed by grief and misery, before he found the body of his son. He was further poisoned by the wounds he had received, and because of them he had gone mad as a beast and not as a man. Flakes of foam were thick and white upon his beard; he had a frightful manner of swinging his head from side to side, snapping with his teeth at whatever came within reach.

It was the third day since he had been so. He remained in the vicinity of the solitary grave, not even leaving it to go for water,—that he no longer needed. The grave continued to hold a meaning, though he was far beyond the saying or the knowing why he stayed. It was blind obedience to an impulse or an emotion that survived the extinction of the last spark of human intelligence, in him quenched forever.

His roving glance that shifted constantly, happened to see a cloud of smoke that ascended from a point a mile or so farther up the coast than he had yet gone. For a space this wonder fixed his vacillating interest. A dulled intelligence stirred within him. It drew him in that direction. He went slowly at first, on hands and feet, then standing, he hurried forward at a run almost.

On a tongue of land that projected out boldly into the ocean, a great bonfire had been built and set alight. As the maniac approached, he saw the builder of the fire where he stood between it and the sea, his eyes fastened upon a passing ship. At first the maniac paid no heed to him, but walked around and around the blazing pile. He was unseen, for the man had no thought but for the ship that drew in, guided by flame and smoke. Finally he became aware that he was not alone. He moved back to the fire and Rearton saw his face,—the face he had seen last when he had bent over his dead wife where she had fallen. He gazed at his former friend stolidly for a time with unwavering insistence, but by degrees a partial capacity for reason dawned upon him and with it came a measure of memory and hate.

Meantime the man was frozen to the spot, horror-stricken by fright of what was revealed to him.

It may have been a minute, it may have been ten, that the maniac and man stood staring at each other; the former with foaming lips that sweated drops of blood; the latter with cheeks that blanched and paled. The man turned toward the ship. Its coming promised safety, should it come in season; and while he did so Rearton advanced a single step, pausing when the man faced him again.

There was power in sanity. It exercised a certain mastery over him. Man and beast stood looking fixedly each at the other, but he could not resist the desire to turn and see from time to time the movements of the ship, and whenever he did so Rearton, crouching low, came closer. For an hour this was the fashion of his advance, and in that hour the man had looked at the approaching ship 30 times. The maniac had made just 30 forward steps that counted 30 yards. Perhaps there remained 10 that separated them.

The ship was stationary, and a boat had left its side and started in. Strong as was his temptation the man dared not look. He kept his face turned to the maniac. He put one foot behind him and fell back in the direction of the beach, moving with the utmost caution. With equal caution the maniac followed.

They had almost reached the water. They heard the distant splash of oars disturb the stillness,—and giving way to weakness, the man withdrew his eyes that he might see the boat. Instantly, with a bound, the maniac darted at him. He gave a smothered cry of rage as he hurled himself on the man, bearing him to earth. There was a short terrific struggle as they wrenched to and fro, his teeth were buried in the man's throat, and mauling closer with vise-like grips he strangled him to death.

As this was doing the sailors landed, and armed with their oars came near the place where the two men were. Rearton relaxed his hold on the dead man's throat and with an angry snarl sprang at the foremost. With their oars the sailors beat him off and hastily retreating to the boat pushed afloat, still defending themselves against his mad attacks.

When sufficient space was between them, they paused to look and marvel. They could see him alone now in the desert, down on his hands and feet, chasing and biting at the cloud shadows that drifted over the waste and sandy plain and fruitless earth.

Slowly, lurching forward by stealth and cunning across the table, came Rearton's actual self. He was frothing at the mouth, his face showed red with livid scars. Nearer—nearer he came, until I felt his hot breath touch me. I could not move . . . but fear gave me power . . . by a mighty effort I sprang to my feet, breaking the spell. Still he followed me on hands and knees over the table. It was no fancy. I saw him with un-

clouded senses. I could see the flakes of foam upon his lips,—for there they were! I could see the livid cuts and bloodshot eyes. He was mad. The vision had become the reality. So bestial was he, so awful and inhuman, that without a thought of pity for him I snatched up the chair in which I had been sitting, and swung it up above my head. He crept nearer in his hideousness. The chair quivered in my clutch, ready to fall. It was his life or mine,—and he was mad.

But I was saved the after pain and remorse that would have been mine had he taken hurt or harm at my hands. The man who had done this thing, who was destined to answer for this sin of his committing, glided in between us. Rearton, where he crouched in readiness to spring at me, glanced up, his interest diverted for the moment, and his eyes met those that were so strangely dark and luminous. He wavered beneath the compelling force they exercised,—wavered for one brief instant and then with a whine like a dog's for mercy, fell down at the man's feet, licking the floor with his black and swollen tongue.

I waited to see no more, but rushed from the room out in the street. I had no conception of the time we had spent together, but it must have been hours and hours, for the streets were deserted and empty. I judged it to be long after midnight.

For a while I walked aimlessly about, seeking to calm and rid myself of a portion of my horror. Eventually pride and a sense of affectionate pity for Rearton returned. Maybe it was all a vision,—the last as false and unreal as the first! Though I tried to convince myself of this, it was only by the strongest exertion of will that I was enabled to mount the flight of stairs that led to my friend's apartments.

I listened in front of the door for an instant. No sound came from within. With a hand that trembled violently, I pushed it open and entered the room. There on the floor were Rearton and the man,—now the victim of his victim. Rearton's teeth had torn his face and breast in a shocking manner, and their last fatal hold was at his throat, on which they were firmly set. Both were dead. About the room the broken furniture gave every evidence of a frightful and prolonged struggle.

(THE END.)

HOME DECORATION.

The average American house should be a comfortable abiding place. The inviting reception hall should be planned and decorated so that the visitor may be impressed with an atmosphere of hospitality. The living room should be a combination of the parlor and the sitting room. Its walls and floor covered with appropriate coverings and the furniture should be such that it may be used by every member of the family every day in the year, without fear on the part of the housewife that scratches will show and colors fade. The dining room should be furnished in a quiet way. Nothing should be permitted in the kitchen which is not of actual use. The bed room should be planned so that air and sunshine may reach every corner. The entire house should show proper decoration. However, there is a variety of opinions as to what is bad in decoration but there must be a common meeting ground and that of common sense is a safe one. Common sense as applied to home decoration includes the four basic principles of all good decoration, namely color, line and design, simplicity and appropriateness.

Getting Some Results.

One day Luther Burbank was walking in his garden, when he was accosted by an officious acquaintance, who said:

"Well, what are you working on now?"

"Trying to cross an eggplant and milkweed," said Mr. Burbank.

"And what under heaven do you expect to get from that?"

Mr. Burbank calmly resumed his walk.

"Custard pie," he said.—Ladies' Home Journal.

POULTRY RAISING FOR FUN & PROFIT

CAPONIZE FOR TOP PRICES.

Don't sell late chickens cheap; caponize them.

Caponize during mid-summer. Capons sell in winter at from 25 to 30 cents a pound.

Rhode Island Reds, Plymouth Rocks, and Brahmas make the best capons.

Keep fowls without food for 24 hours before caponizing.

Be careful to cut away from, and not toward the backbone when making the incisions.

Always dress capons "in style"—leave feathers around necks, hocks, on wing tips and end of the tail.

Dry pick capons to get the best results.

Ship capons in dozen lots; they bring better prices.

TEN HENS SUPPLY EGGS FOR SMALL FAMILY.

Three Andalusians, three Rhode Island Reds and four Plymouth Rocks: These comprise the flock of hens of a friend of mine, who lives in a village, and which I saw last month. They had been given to him and that accounts for the different breeds.

They are fine, healthy looking birds, and have the run of a large yard and the barn, where they range at will. There is lots of grass, sunshine and clean water for them at all times. Had a corner of the yard been dug up and planted to corn or sunflowers to provide shade, the conditions would have been ideal. They are fed on table refuse, wheat and middlings, and crushed oyster shell is kept before them at all times.

During the three months ending June 1, this flock laid an average of six eggs a day. This shows how easy it is to keep a few hens to supply eggs for the family. Eggs are relished when there is a positive guarantee that they are fresh.

With very little bother every villager or city dweller may provide eggs for the use of the family that will be all, and he is independent of huckster and grocer.—F. M. Christianson.

DROOPY WINGED CHICKS.

While a few beginners observing the long wings of their Leghorn chicks congratulate themselves on rapid growth, a great many of the more observing beginners write to Helen Dow Whitaker of the poultry division of the State College of Washington, asking how to prevent them. In reply, Mrs. Whitaker states that droopy wings and loose feathering are more frequent among the Leghorns and other light weight breeds than among the heavier birds which seem to use food first for frame and muscles and later for feathers. In general, drooping wings show lack of assimilation of sufficient nourishment in the food to keep up with rapid feathering. The following are conditions favoring them: Overheating, crowding, impure air; but especially lack of exercise.



Vanity Case FREE

Made of rich German silver, with fancy flower border. Has good mirror and powder puff compartment, places for quarters, dimes and nickels, also strong catch that will hold cards and bills, 10-inch chain. Given free to anyone for selling 20 large art and religious pictures at 10c each. We trust you with pictures until sold and give you 25 beautiful postcards as an extra gift for promptness. Send your name today. People's Supply Co., Dept. R. 7, 716 Lucas Ave., St. Louis

and lack of green food in a rather rich ration, which finally results in indigestion. The chick is unable to assimilate the nutriment in his food and he suffers from lack of nourishment just as surely as though he were underfed.

To avoid droopy wings, avoid the conditions that induce them. Feed a ration containing oats, first rolled oats, breakfast food form but uncooked, from the fourth week on sprouted oats; also feed cracked wheat and after the 14th day an equal bulk of finely cracked corn. For a mash, use to every 10 pounds of bran at least one pound each of dry granulated bone and high-grade beef scrap. Best of all, give chicks all the clabbered milk they will drink, but do not let the milk become bitter before feeding. Keep the chicks hungry and keen for each meal, feeding little and often. Twice a day feed an abundance of finely cut, tender, juicy green food. Send every chick to bed with a comfortably full crop. Under these conditions, if the chicks are not of weak stock, few will have droopy wings.

MISSOURI STATE SHOW TO BE HELD AT JOPLIN.

Poultry breeders will have an exceptional opportunity at the Missouri State Poultry Show this year to place their fowls before a very large number of people who are just getting into the poultry work. The show will be held at Joplin, December 7 to 11.

Through co-operation with the commercial club of Joplin the Missouri State Poultry Association has decided to throw the show room doors open to the general public, and the commercial club has guaranteed to furnish a building suitable for housing 5,000 birds, and also will pay part of the operating expenses.

This arrangement has resulted from influence brought to bear by some of the leading poultrymen of that community, who state that the free admission will result in attracting thousands of people from their trade territory, which is supplied with numerous steam and interurban lines running in all directions.

The same poultrymen believe that the free admission will result in developing the poultry industry in that field, to such an extent that the gross income will exceed the output of the mines in Jasper county. Wheat is the largest wealth producer of Jasper county farms, but the combined city and farm poultry flocks produce a greater wealth than the wheat crop. Unfortunately large numbers of the farms have only mongrel fowls, and no doubt the exhibition of several will exert a strong influence on the visitors to the poultry show to dispose of their mongrel flocks and introduce some variety of pure-bred poultry. The exhibitors thus will be in the position of presenting their birds to the largest number of prospective purchasers, at the minimum of expense.

Big Chance to Sell Birds.

Every breeder who has any surplus stock for sale during the coming winter, should plan to exhibit some of his or her best specimens at the show. It is not too early to begin conditioning the old fowls, so that they will be over their moult and in fine feather for this show. The young stock will come along nicely without a great amount of attention but they should have plenty of protein to develop full size frames on which the weight and feathers can be carried to the best advantage.

The same cooping arrangements have been made for the coming show as was used at the last show, which was the classiest show ever held west of the Mississippi river and drew praise from every exhibitor and visitor.

The Missouri State Poultry Association is the largest state poultry association in the world, numbering about 5,000 members, and it is the desire of the association to increase the membership to 7,500 before the first of December, for "in union there is strength" and the larger the membership, the more good the association can do for poultry interests in this state. The annual dues are only 50 cents a year, and the benefits include listing in the annual year book, chances to compete at about 60 poultry shows in Missouri for the special

membership prizes, and numerous other features. Fred Crosby, Mountain Grove, is secretary-treasurer, and will be glad to receive new or renewal membership and answer any communications regarding the work of the association or any questions about the state poultry show.

HOW TO FATTEN FOWLS AND BROILERS.

Fowls from western fattening houses are now selling on the eastern markets at about 2 cents a pound above the price of the ordinary eastern farm fowl, according to the statement of the poultry department at Cornell University. This is said to be true because, in spite of storage and long shipment, they are specially fattened and come on the market in a plump and attractive condition.

There is no reason, according to the Cornell poultry experts, why the eastern farmer could not reap the benefits of the extra 2 cents a pound if he would take the pains to fatten broilers and fowls before selling them. It is pointed out that few people realize the loss on broilers and fowls due to placing them on the market in an unfattened condition. This loss is not due entirely to less pounds of actual flesh, but to the difference in price because of inferior appearance and quality.

The farmer does not think of selling an extra hog or a veal calf in poor condition. They must first be fattened, it is pointed out, and the same rules should apply to poultry. While stuffing and crate fattening may not be practicable on the average farm, it is stated that the birds can be well prepared by pen fattening at very little trouble and expense.

How to Fatten Fowls.

The directions for fattening fowls on the farm, as given by the department of poultry husbandry of the state college of agriculture, are as follows:

Confine the birds in a small and somewhat darkened pen, allowing about two square feet for a mature fowl and one square foot for young chickens. Do not feed for the first 24 hours, then begin feeding rather scantily increasing the amount gradually until at the end of two or three days they are getting all they will clean up in about 20 minutes, when fed regularly three times a day. This should continue for about two weeks which is ordinarily as long as the fowl can stand such heavy feeding, and at which time if the fowls were healthy and in good range condition, they should be full and plump along the keel and have heavy, firm drumsticks and thighs.

Preparation of Feed.

- Three good fattening rations follow: 1. One hundred pounds corn meal, 100 pounds buckwheat middlings, or ground buckwheat with hulls removed, 100 pounds red dog flour, 30 pounds beef scrap, 1 pound charcoal.
2. One hundred pounds corn meal, 50 pounds wheat middlings, 50 pounds ground oats, 30 pounds beef scrap, 1 pound charcoal.
3. One hundred pounds corn meal, 60 pounds wheat middlings, or red dog flour, 20 pounds beef scraps, ½ pound charcoal.

DIGESTIVE TROUBLE IN CHICKS.

I want to find out what is the matter with my chickens. In the first place they begin to shed their feathers around the neck and then they get sick and go blind. When they get sick their feathers all come loose so that when you touch them they come out. They have all died so far that had the trouble. Generally they are sick from two to three weeks.—T. R. Pint, Oklahoma.

The chickens doubtless are troubled with a digestive disorder of some kind. It may be due to intestinal parasites, or it may be due to improper feeding. Examination of the dead bird ought to reveal the difficulty. If intestinal worms are found in large quantities, the first step is to give the birds a purgative such as epsom salts, a teaspoonful to an adult bird followed in a few hours with arca nut, a 10-grain dose for chickens and a 30-grain dose for adult birds. This can be mixed in the feed or fed in 10-grain capsules.

If the trouble is due to digestive disorders caused by poor feeding, the enquirer should see to it that the birds get no sour or decayed food, especially dead meat which is quite common in the summer time, caused by chickens dying and being undiscovered.

SCALY LEG.

Scaly leg, which is caused by a parasite working under the scales on the legs of the chicken, is usually contracted at this season of the year, while the chicks are roosting with their feet in the filth of a hover which is not properly cared for. It is easier to clean the hovers often than to cure the birds after they have contracted the disease. Should the birds contract the disease, we have found the following the most effective remedy: Equal parts lard and sulphur made into a salve, and rubbed on the legs. This will cure the disease, but will not destroy the color of the legs.

Some of the third cutting of alfalfa will help out the hens next winter in manufacturing eggs.

A clean coop and freedom from lice and mites will assist the chicks to grow fast and the fowls to moult properly.

ARKANSAS NOTES.

Editor, Rural World:—Alfalfa makes fine hay. Every farmer ought to sow it. The stock like it well. It is fine feed for cows in the winter. The Johnson grass and Sudan is doing well here, also.

I believe we can grow almost anything here in the mountains. Gardens are fine, plenty of all kinds of vegetables. Not many apples this year, but peach trees are bending; lots of plums, but no grapes.—Sarah L. Spears, Arkansas.

CATTLE QUARANTINE.

Counties and townships in Illinois, Indiana, Michigan and Minnesota were placed under closed quarantine on August 11 by the U. S. Department of Agriculture for foot-and-mouth disease, as follows:

Illinois—Counties of Bureau, Ford, McDonough, Henry and Warren. Townships of Ella, Vernon and West Deerfield, in Lake county, and all of Cook county except the Union Stock Yards at Chicago.

Indiana—Posey county.

Michigan—Saginaw county.

Minnesota—Dodge county.

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LIVE STOCK.

RED POLLED BULLS for sale. P. J. Murta, Cuba, Missouri.

REGISTERED RED POLLS—Milk, butter and beef. W. L. Kennedy, Lola, Ky.

FOE SALE—Five young fresh Jersey cows. U. F. Denlinger, Baldwin, Kan.

O. I. C.—Pigs, large kind, \$15.00 per pair. Write for circulars. Ray Ruebush, Sciota, Ill.

GUERNSEY BULLS—Registered, and extra good individuals; priced to sell. Gebhardt Bros., Palmyra, Mo.

HIGH-GRADE ANGORA GOATS, \$3.25 per head, at my ranch, New Mexico. L. C. Moore, Calvert, Texas.

MULEFOOT HOGS—Special sale on spring pigs. Write for booklet and particulars. Cedar Hill Hog Farm, Willmar, Minn.

COMING 2-year-old black Percheron stallion, also 2 fillies coming 3 years old. Martin Ghio, Wellston, Mo., St. Louis County.

IMPROVED TEXAS GUINEA HOGS—Most economical pork and lard producers; solid black, very prolific. Pigs for sale. Welton Winn, Canyon, Texas.

YOUNG BROOD MARES and colts for sale. These mares are in foal for the coming season. For particulars, address, Max Puschenodorf, Lusk, Wyo., Box 175.

HELP WANTED.

MEN AND WOMEN wanted everywhere. Government jobs. \$70 month. Short hours. Summer vacation. Big chance for farmers. Write immediately for list of positions now obtainable. Franklin Institute, Dept. A. 167, Rochester, N. Y.

BUSINESS OPPORTUNITY.

FREE FOR SIX MONTHS—My special offer to introduce my magazine "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,300. Write now and I'll send it six months free. H. L. Barber, 477-23 W. Jackson Blvd., Chicago.

PATENTS.

PATENTS SECURED or fee returned. Send sketch for free search and report. Latest complete patent book free. George F. Kimmel, 230 Barrister Building, Washington, D. C.

SEED AND NURSERY STOCK.

TROPICAL PLANTS—Write for catalog. Everglade Nursery Company, Fort Myers, Fla.

ALFALFA SEED 12c per pound. This is a bargain and won't last long. I need the money. J. L. Maxson, Buffalo Gap, S. D.

BEES AND HONEY.

BEST QUALITY new clover honey, 36-lb. can, \$3.45, two or more cans, \$3.25 each. Sample 10c. Price list free. M. V. Farcy, Preston, Minn.

FARMS AND LANDS.

MISSOURI FARMS: 5 160-acre farms; well improved; \$10 to \$25 per acre; other farms. C. H. Martin, Doniphan, Mo.

FOR RENT OR SALE—400 acres, 4 miles northeast of Scott City, Kan. For particulars write H. Fuhs, Kirksville, Iowa.

SACRIFICE—222 acres, crops, stock, tools household furniture; 7-room house. Easy terms. Fairland Farm, Manassas, Va.

50 IMPROVED FARMS, 40 miles south Kansas City, 40 to 100 per acre; fine corn, wheat, oats, timothy clover, bluegrass land. Send for lists. J. B. Wilson, Drexel, Mo.

FOR SALE—Beautiful and highly productive Virginia farm, 600 acres. Model for stock or dairying. Description and price on application. W. R. McHaffey, Mattoon, Va.

BEAUTIFUL RESIDENCE and pineapple plantation, 30 acres land, all kinds tropical fruits, one of the finest locations on Indian river, cheap if sold soon. Write owner for description. Box 126, Eden, Florida.

DAIRY FARM 12 acres, ½ mile from Roswell, New Mex., 8,000 pop.; artesian well; 6-room residence; barn 46 stalls, with electric lights and motor. All modern improvements. Price, \$6,500; half cash. John Truan, Forest Hill, La.

PRODUCTIVE LANDS—Crop payment or easy terms; along the Northern Pacific Ry., Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Free literature. Say what state interests you. L. J. Bricker, 44 Northern Pac. Ry., St. Paul, Minn.

FREE LAND:—Another distribution of choice land, part of Demonstration Plantation, the show plantation of the South. Free to people having it improved within five years. Need never live on the land. Address Commissioner H. L. Holmes, Block 179, Calvert, Alabama, for particulars.

DAIRY FARM of 190 acres within ½ mile of Alexandria, La., 16,000 pop., 7,000 residence. Milk house and stalls cost \$7,500, other buildings \$2,000. Deep well and gasoline engine; water piped all over place; 500 bearing pear trees. Price, \$20,000; \$4,000 cash. Liberal terms. John Truan, Forest Hill, La.

POULTRY.

Pigeons.

GOOD HOMER PIGEONS—Satisfaction guaranteed, \$1.50 pair. C. Saterbak, Duane, Tenn.

Several Varieties.

FOR SALE—All kinds of thoroughbred poultry, turkeys, geese, Pekin, Rouen, Muscovy and Runner ducks; bantams, guinea fowls, hares, rabbits, fancy pigeons. Write wants, free circular. D. I. Bruen, Platte Center, Neb.

MISCELLANEOUS.

MOTORCYCLES AND SUPPLIES—Write for prices; all makes, new and used. Lloyd Kelley, Council Grove, Kan.

FOR SALE—40,000 pounds best leaf tobacco, from 2 to 8 years old. Half stamps for sample to Anton Wavrin, Franklin, Ky., R. No. 4.

Analyze the Farm Business to Determine the Profits

IN order to enable the farmer to ascertain with reasonable accuracy the amount of money that he is actually making out of his farm, specialists of the United States Department of Agriculture have drawn up a series of blank forms which are included in a new publication of the department, Farmers' Bulletin No. 661, "A Method of Analyzing the Farm Business." These blanks are designed to enable the farmer, by means of the knowledge most farmers have of the details of their business, to record the essential facts concerning the crops raised during the year, his live stock transactions, his receipts from his stock products such as butter, wool, eggs, hides, etc., his receipts from miscellaneous sources, his current expenses, and the depreciation in his machinery and buildings. A table is also provided to assist him in estimating the capital invested in the business. With the blank forms given in this bulletin a farmer can, with a few hours' work provided he has the facts fairly well in mind, make a complete summary of his year's business and obtain his labor income. The various items are summarized in a final table.

The farm income is of course obtained by deducting the total expenses from the total receipts. This, however, includes both the use of the capital and the pay for the owner or operator's own labor. Capital has an earning power which must be estimated as at least the equal of the current rate of interest on well-secured farm loans. To ascertain the value of his own labor, therefore, the farmer must deduct from the farm income a sum equal to this rate on the capital invested in the business.

The Labor Income.

The result is known as the labor income. To it must be added the use of the farmhouse and the value of the products that the farm furnishes for the family's living, such as fruit, vegetables, dairy products and fuel. This last fact is frequently overlooked in comparing the farmer's income with city salaries. For this reason the salaries that city men obtain frequently look very large to the farmer who forgets that they must pay out much of this money for rent and supplies which his farm furnishes him.

In analyzing the farming business in this way no account is taken of mortgages or of personal expenses. The object is to ascertain how much the business makes irrespective of what proportion of it the operator owns and irrespective also of how much money he chooses to spend on his own and family's comfort. The record begins with the opening of the farm year which varies, of course, according to the locality in which the farm is situated. In the northern states this may be some time in March, while farther south it may be as early as January 1. In any event it corresponds with the dates on which tenants change farms, so that both tenants and owners may use this method of book-keeping.

Efficiency in Farming.

If the analysis is made carefully and conscientiously it will greatly aid the farmer to determine whether or not his methods are efficient. Efficiency in farming may be said to depend primarily on these three factors, (1) the size of the farm business, (2) the yields of the crops and the returns per animal, representing the quality of the farm business, and, (3) the diversity of the business.

The size of the business is not to be measured solely by the amount of capital invested or the area in crops. Under certain conditions 40 acres of truck and general crops may bring in as much income as 200 acres devoted to grain and hay. Therefore, the size of a farm business can be measured with a greater degree of accuracy especially in comparing different types of farming by the number of days' labor required to operate the farm. Where the farm business is too small the owner, though he may be occupied all the time, is not actually

engaged in productive work through the whole year. In the same way his machinery may not be utilized to its fullest extent.

For Greater Returns.

After the facts are made available there are several ways of readjusting a farm business for greater returns. More land may be bought or rented, crops that require more labor and bring in more returns may be grown, more livestock may be raised even if feed has to be bought for the purpose, or finally outside work may be sought. Which one of these methods should be adopted depends, of course, on local conditions. Where there are no adequate market facilities it is useless to spend time on a few acres of beets, potatoes, or fruits, and on the other hand in certain localities there is no opportunity for outside work.

It is, of course, more difficult to estimate the exact amount of productive labor that one man should be able to do on a farm than it is to make the same calculation in a factory where standard machinery, in many cases, sets the pace for the workman. The bulletin already mentioned contains a table giving approximate standards for the labor involved in the production of a number of crops and the care of various classes of live stock. For example, it is stated that the amount of labor required to cut one acre of timothy, alfalfa, or clover hay, is about equal to one man day and one horse day. An acreage of cotton should require in the course of a season from eight to 12 work days for a man and from four to six for a horse.

Diversity of the Business.

The third factor in the efficiency of a farm, its diversity, can, of course, be carried to a disastrous extreme. Diversified farming does not mean producing a little of everything and not much of anything. It does mean, however, a well-balanced business which enables all the labor and equipment to be kept busy throughout the year, and provides the farmer with several sources of income to insure him against too great loss from a sudden fall in the market value of any one crop. The investigations which, in recent years, have been made into the profits of the farm have, in general, shown that those farmers are the most successful who have from two to four principal sources of income. At various times it is true that one crop appears to be much more profitable than any other, but in such cases the production of these crops usually increases with such rapidity that the price falls to a point where other enterprises are equally advantageous. A comparatively large amount of cash taken in does not necessarily mean real profit. The only way to determine exactly what a farming business is making each year is to adopt some system of analyzing output and income, similar to that contained in the new bulletin of the Department of Agriculture. The blanks contained in this bulletin do not, of course, contain items suited to every locality, but the farmer can easily adapt them to his own conditions.

BEST TIME TO FILL SILO.

The best time to cut corn for the silo is when the ears are well ripened and before the leaves have become dry, says A. C. Arny of the Minnesota experiment station.

This conclusion has been reached as the result of experience. The early practice was to cut corn while it was still quite green. But analysis revealed the fact that the feed value increased as maturity of the plant approached, and the practice therefore changed, in some cases to the other extreme. The best results, however, seem to be from corn cut as indicated.

This year corn is backward. Frequent, shallow cultivations should be given it beyond the usual time in order to hasten development. With this and favorable corn weather through August and the first weeks of September, much of the corn should reach the dent stage before frosts come.

If frosts should come before the corn has reached the dent stage, however, the best thing to do is to hurry the immature corn into the silo. The silo offers the best means of handling immature corn.

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NO. 5. ONE DOZEN SILVEROID TEA-SPOONS. 6 inches in length, made of solid silveroid (pure white metal) which will not tarnish, and lasts for

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